```
1574 ACAACATELLICALATGICTITALIGGCGLGCGCTCTTGAGGTFCTAATGGCCACATATA 1633
                                                                                                                                                                                        HERA OF AGAMETRIC HELLICH HELLE HELLE HELLE HELLE HELLE HELLE HER SAME AGAMETRIC CONTROLLE AT THE SAME TRANSPORTED HER SAME THE SAME TRANSPORTED HER SAME TR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1994 CTACGGGGTAAATTCTACGGCAAATGCAGAGACACAAACGCAACGTCAGCTTCCAAACCC 2053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2354 TONANGGIGITITGATGANGANGAGGAGIATGATTGIATANTAGTATGIATAAGGGG 2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25.44 TPCTGGGAGGAACAFCTATATTCACCCCGGAAGACCCATATAAAATFTCAGAGGTC 2593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2594 TGCCAACACCAAAAATGACTCCAAGATCAAGATCTTAGTATTGGTGAATCAT 2653
1442 NYAACAFTTTFOATATGTCTTTATTGGCGTGCGCTCTTGAGGTTGTAATGGCCACATATA 1501
                                                                                                                                                                                                                                                                                                                                               1682 AATCCCTTGCAIGGCTCTCAGATTCACCTTAITTGATCTTATTAAACAAICAAAGGACC 1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1874 GAGAAGGACGAACTGATCHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1982 ATCTCCCGGCTAAATACACTTTGTGAAGGCCTTGTGTGGAGGAGGAGGAGAATTAGAACAIA 2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2102 ATTLOGAGGAAATTAFGAFGFGFTFCATGFAFGGGAFAFGGAAAGTGAAGAGAATAFAGACC 2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2282 TOTTICATORAGACTGAAAACAAATAFTTTGCAGTATOOFTCCACCAGGCCCCCFACCT 2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2414 TOTTOATGOAGAGTGAAAACAAATATITTGCAGTATGOTTCCACCAGGCCCCCTACCT 2473
                                                                                                                                                                                                                                                                                                           1562 ATGLOCHTAATTTAAAAGCHTGATTTTTACAAAGTGATGGAAAGTTTATGAAAGCAG 1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1622 AAGGCAACTTGACAAGAAAATGATAAAACATTTAGAACGATGTGAACATGGAATCATGG 1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1814 AATGGGTTGGATGGGTGTGAGATTCAGGTTTATTTGATGTTATTAAAGAATGAAAGGAGG 1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1742 GAGAAGGACTAACEGAFGAFCELGEGGEEGEGEGEGEGEGEGEGGAGAATA 1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1802 ATCACACTGCAGCAGATATGTATCTTTCCCTGTAAGATCTCCAAAGAAAAAAGGTCAA 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1922 AGAAGCALIGAAAICIACCIGIGIGIGIGITTATAAAAAGIGIALGGGCIAGCCE 1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2042 TCATCIGGACCTITICCACCACACOCGOAGAAIGAGIAIGAACTCAIGAGAGAGGC 2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2234 ATTTGGACCAAATTATGATGTGTTCCATGTATGGCATATGCAAAGTGAAGAATATAGACC 2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              114.1 TIAAATTOAAAATOATTOTAAOAOATAAOAAGATOITOTOATOITOAAAAATOAAAAA 2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2462 TOPCAAPACCAAPAAAATGAPTPCAAGATGAAGAATCITTAGTATGAATTGGTGAATGAT 2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2402 TECCEGGGGGGAACAFCIAIATIFCACCCCTGAAGAGTCCAIATAAAATITCAGAAGGTC
                                                                                                                                                   1502 GCAGAAGIACATCICAGAATCIIGAIIGEGGAACAAATTTGTGTTTGCCATGGATTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.44.2. TGTCACGAATACCTCACATTCCTCGAAGCCGTTACAAGTTTCCTAGTTCACCGTTACGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                     =
                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \frac{2}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
```

```
2654 TCGGGACTICTGAGAAGTICCAGAAATAAATAGATAGTATGTAAAAAAAAAGTGTGT
                                                                                2582 TCAAAAGAAGIGCIGAAGGAAGCAACCIFCIAAAFFGGAAAAAATIAGGIGAILGAIA 2641
                                                                                                        2642 INGAAGGATCAGATGAAGCAGATGGAAGTAAACATCHCAGGAGGAGTCCAAATTCAGC 2701
                                                                                                                                                                                                                                                2702 AGAAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAGCAGAAAATGAATCATA 2761
                                                                                                                                                                                                                                                                                                                                 2762 GCATGGATACCICAAACAAGAAGAAAATGAGGAICTCAAGACTIGGIGGAACIGIG 2821
                                                                                                                                                                                                                                                                                                                                                                          2894 GCATGGATACCTCAAACAAGGAAGAAATGAGAGATCTCAGGACCTTGGTGGACACTCTC 2953
DODD TOGGGACTTOTGAGAAGTTOCAGAAAATAAATGAGATGGGAGGAGGAAGGGGGG 258]
                                                                                                                                                                                              TITLE OF INVENTION: Recombinant Adenovital Vector and LITLE OF INVENTION: Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                    2822 TACACCICTGGATICALIGICICICACAGAIGIGACIGIAL 286.2
                                                                                                                                                                                                                                                                                                                                                                                                                                         2954 TACACCICIGGATICALIBICITICI | LITTLE | 2994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RECISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-CJ 1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/ UB/ 959, 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05,387328,673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 08/233,777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US 08/142,669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Campbell and Flores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 7, Application US/08959638
Patent No. 5932210
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Gregory, Richard J. APPLICANT: Wills, Ken N. APPLICANT: Maneval, Daniel C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Campbell, Cathryn A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (619) 535-9001
(619) 535-8949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER, 05/08 PITTING DATE: 25-00T-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID No: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-00T-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA: AFFLICATION NUMBER, 05,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 19-MAY-PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 25-OCT APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7-88-9-638-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET:
                                                                                     ò
                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                       Ę
                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                    ŝ
```

°,

```
1034 ITAIGAATTCIGITIGGACITGIAACATCIAATGGACTTCCAGAGTTGAAAATCTTCTA 1093
                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          542 GITCGATAICTACTGAAATAAATTCTGGATTGGTGCTAAAAGTTTCTTGGATCACATTTT 601
                                                                                                                                                                                                            254 CGGAGGACCIGCCICICGICAGGCTIGAGITIGAAGAACAGAAGACCIGAITITACIG 313
                                                                                                                                                                                                                                                                                                                                                                                         902 ITATGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTTTCTA 961
                                                                                                                                                                 122 CGGAGGACTTGOTOTOTOGTCAGGTTTGAAGTTTGAAGAAGAAGGTGATTTTACTG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                     302 GGGGAATCTGTATCTTTATTGCAGCAGTTGACCTAGGTGATATGTGGTTCACTTTACTG 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.22 ATAPCAGTAGCAAGTFGATAATGCTATGTCAAGACTGTGAAAAAAGTATGTGTTGT 4.81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   482 ITGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTFAFAFAFFGACACAAACGGGGA 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              674 GITCGAIAICIACIGAAATAAATICIGCAIFGGIGCIAAAAGITICITGGATCACATITT 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      602 IATIAGCIAAAGGGGAAGTATTAMAAATGGAAGATGATGGGTGATTTCATTTGAGTTAA 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   782 GGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTGTA 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 914 GGAGTGCACGGATAGCAAACAACTAGAAATGATACAAGATTATTGAAGTTCTCTGTA 973
                                                                                                                                                                                            362 AGCTACAGAAAAACATAGAAATEAGTGFCCATAAATTCTTTAACTTACTAAAAGAAGTTG 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                842 AAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAATTTTATACCTT 901
                                                                                                      C, Gaps
                                                                                                                                  182 CATTATGTCAGAAATTAAAGATAFCAGATCATGTGAGAGAGAGAGAGFTGGTTAACTFGGG
                                                                                                                                                                                                                                                                                                                                                                         242 AGAAAGTITCAFCIGIGAAFGGAGTATGGGAGGITATATTCAAAAAAAAAAAGGAACIGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          494 AGCTACACAAAAAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 2854.8; DB 2, Length 2995,
                                                                                                                                                  Indels
                                                                                                      ;i
                                                                                        Pred. No. 0;
0; Mismatches
                                                                        80.3%,
99.9%,
                                                                                                    Conservative
              CDS
139..2922
                                                                        Query Match
Best Local Similarity
              NAME/KEY:
                            ;
US-08-959-638-7
                                                                                                    Matches 2856;
FEATURE
                                                                                                                                     ੋਂ
                                                                                                                                                                9
                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                        Ē
                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                           GD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>a</u>
                                                                                                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;;
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>~</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         급
```

```
1022 ATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAGACACCCCGAA 1081
                                                                                                                         1154 AIGAIAAAACICTICAGACIGAIICIAIAGACAGIIIIGAAACACAGAAACACAGGAA 1213
                                                                                                                                                                                            1814 AAFOCOTTGCTGAGGTCTGGAGGTTGACCTTATTAAACAATCAAAGGACC 1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2114 ATCTCCCCCTTAGATACATTTGTCAACGCCTTCTGTCTGAGCACCCAGAATTAGAACATA 2173
                                                                                                                                                                   1082 AAAGTAAGGTTGATGAAGAGGTGAATGTAATTGTAATGGGAGAGGGGGTTAGGAGTGA 1141
                                                                                                                                                                                                                                                                              TCAAGGATATAGGATACATCTTTAAAAGAGAAATTTGCTAAAAGCTGTGGGGAGAGGTTGTGTG 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1394 IGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAAGCTGTGGGACAGGGTTGTG 1453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1382 CCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTACCAAACTTCTGAATG 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1514 CCATGCTTAAATCAGAAGAAGATTATCCATTCAAAATTTTAGCAAACTICTGAATG 1573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1442 ACAACATTTTTCATATGTGTTTATTGGGGTGGGGTGTTGAGGGTTGTAATGGCCACATATA 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1502 GUAGAAGTACATCTCAGAATCTTGATTCTGGAACAGAITTGTCTCCCCATGGATTCTGA 1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1682 AATOCOTGGAAGGAGCOTGAAATTGAAGTTAATTTGATGTTATAAAAGAATGAAAGGACC 1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1934 ATCACACAGAGAGAGATATCTTTCTCCTGTAAGATCTCCAAAGAAAAGGIICAA 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1634 GCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTGTCTTTGCCATGGATTCTGA 1693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1562 ATGTGCTTAATTTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTTATCAAAGCAG 1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1694 ATGTGCTTAATTTAAAAGGGTTTGAATTTTTAAAGTGAGGGAAAGTTTTAIGAAAGGG 1753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1622 AAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACATCGAATCATGG 1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1742 GAGAAGGACCAACTGATCACCTTGAATCTGTCTTCTTAATCTTCCTCTCCCAGAATA 1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1874 GAGAAGGACCAACTGATCACCTTGAATCTGCTTGCTCTCTTAATCTLCCTCTCCAGAATA 1933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCACACTGCAGAGATATGTATGTTTCTCCTGTAAGATGTGCAAAGAAAAAAGGCTLCAA 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1982 ATCTCCGGCTAAATACACTTTTGTGAAGGCGTTGTGTGAGGAGGGCGGGAATTAGAAGATA 2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2042 PEARCHSTATE TERRITANIAN FOR SANARANIAN SANCENTANIAN SANCASSE 2101
962 AACGATACGAAGAAATTTATCTTAAAAATAAAAGATCTAGATGCAAGATTATTTTGGATC
                                                                                                                                                                                                                                                          IGAACACIAICCAACAAIIAAIGAIGAIGAICHITAAAIICAGCAAGTGAACCIICAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCGAAATTGGATCACAGCATACAAACTTGAAATTGGCTTATATTAGGGAGTAATGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1862 (CTADEDSTICTANTESTACTES NAMED SOCIALIS (NAMED SOCIALIS ASSASS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1994 CTACGOTOTAAATTOTAGTAAAAGAAGAAGAAGAAQAAQOOOO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1922 AGAAGCCATTGAAATCTACCTCTCTTTCACTTTTALAAAAAAGLGLAFCGGCTAGCCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1802
                                       90
                                                                                    δ
                                                                                                                         먑
                                                                                                                                                                      ^{\circ}
                                                                                                                                                                                                           Op
                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                               Ü
                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                 금
                                                                                                                                                                                                                                                                                                                                                                                                                           97
                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _{\rm QY}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                긤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CC
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
```

```
2174 LCATCTGGACCTHTTCCACACACCTGCAGAATGAGTATGAACTCATGAGAGACAC 2233
                                                                                                                                                                2234 ALTICOANSAAALFAIGALGI ICCATOATGGCATALGICAAGAAGIGAAAATATAGAAA 2243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2474 IGTCACCAATACCTCACATTCCTCGAAGCCCTTACAAGTTTCCTAGTTCACCCTTACGGA 2533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2402 TPPTFGGAGGGAACAPCLATATITCACCCTGAAGACTCCATATAAAATTTCAGAAGGTC 2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2522 TOBBRACH FOR BARACH CORGARAM FAMILIANG FAR BARACAGGGGGGGGGC 2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2654 TOSSOAMTITOTOAGAAGITOGAGAAAIAAAIOAGAIGGIAIGAAAAACAGGAAGGGIGIGC 2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2702 AGAAACIGGCAGAAAIGACIICIACIGGAACAGGAAHGCAAAAGGAGAAAAIGAATGATA 2761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2762 OTATOCATAPOTESAAGAAGAAGAAGAAATGAGGATGTGAGGAGGTTGGGAGACGTGTG 2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2894 GCATOGATACC EGAAACAAGGAAGAAATGAGGATCTTGAGGACCTTGG EGGACTCTG 2953
                                                                                                                                                                                                                                                                                         2152 TIAAATICAAAATCALEGIAACAGCATACAAGGATGCTGCTGAFGCFGTTTGAGGAGACAT 2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2462 TGGCACCACCAACAAAATGACTGCAAGATCAAGAATCTTAGTATCAATTGGTGAATGAT 2521
                                                                                                                                                                                                                                                                                                                                 2102 ATTTGGACCAAATTATGATGTGTGCATGTATGGCATATGCAAAAGTGAAGAATATAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2222 FOAAAOGGGELEGAFOAAAGAAGGGGGEAGGATTGFAFFAGAGTAFFGAAGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.354 TCAAAAGTGTLLIGALCAAAGAGGGGTATGATTCTATTATAGTATTCTATAACTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2.34.2. I GER SACE AN EAGE CAN FROM THE SACE AND THE CONTRACT AGE TO A CONTRACT OF THE CONTRAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2282 FOTTOATGOAGAGAGAAAAAAAATATTTTGGAGTAIGOTLOCAGGGGGGGGGTAGGT
Therapeutic Use of the Retinoblastoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: The Regents of the University of California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2822 IAMANTOTORGATICATISTICIOACAGAIGIGACIG 2859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Susceptibility Gene Product
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4370 La Jolla Village Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1, Application PC/IUS9410357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSER: Campbell and Flores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and Canji, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        San biego
Calitornia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P°T 0894 10457 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \tilde{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>2</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                         :~
>
                                                                                                                                                                                                                                                                                                                                                                    ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
```

```
Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 554 ATACCAGTACCAAAGTTGATAATGCTATGTGAAGAGTGTTGAAGAAGAAGAGTGTGT 614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                - 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            542 OLEGGATATCHACIGAAATAAATTCLGCATTAGAGAAAAAGTTCTTGAATCACATTTT 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      74]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 374 AGAAAGITICATCIGGGAIGGAGIAITGGGAGGITAICAAAAGAAAAAGGAACIGT 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               802 GGGGAATCTGTTTATTGCAGGAGTTGACTTGACTGATATGTGGTTCATTTTACTG 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        862 AGCTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTIIIAACTTACTAAAAAGAAATTG 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    422 ATACCAGTACCAAGIIGATAAIGCTAIGICAAGACHRIGAAGAAGDAIGAIGEAFIGE 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sales to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            482 TEGCACECTECACCAAATEGGAAAGGACATGTGAACETATATATETGACAAAGECA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           182 CATIALGICAGAAAITAAAGAIAAGAGAICAIGICAGAGAAGAGGIIGGIIAACIIGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sector 2854.6; DB 5, Conditionard Pred, No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4) Indels
                                          Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/LOCKET NUMBER: FP-UC 1117
                                                                     PCT, AUS 94,710 457
                                                                                                                                  08/121,108
            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                           Cathryn A.
BER: 31,815
                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                    885 . 58
44. 983
                                                                                                                                                                                                                                     (619) 535-9001
                                                                                                                                            13-SEP-1993
                                                                                   13-SEP 1994
MEDIUM TYPE: Floppy disk
                                                                                                                                               FILING DATE: 13.SEP-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                  TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID No. 1
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                               LENGTH: 2994 base pairs
                                                        CURRENT APPLICATION DATA: APPLICATION NUMBER: POT
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 99.99
Matches 2857; Conservative
                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                               PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                         REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                         149..2924
                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                             Campbell,
                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                      FILLING DATE:
                                                                                                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                         LOCATION:
                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                      PCT-US94-10357-1
                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                             NAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \ddot{o}
```

661 793 721 853 781 913 841	901 1033 961 1093 1021 1153 1081 1213	1141 1273 1201 1333 1261 1393 1321	1381 1513 1441 1573 1501 1561 1593	1621 1753 1681 1813 1741
TATTAMAGGGGAANTATTAMAATGGAAGATGATCTGGTGATTTCATTTCAGTTAA HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	AAGAACATGAATATTAGATGAAAAATGTTTATTTGAAAATTTTTATAGTTTTTT	AAAGTAACCTTGAAGAAGGTGAATGTAATTCCTCCACACACTCCACTTAGGACTGTTA AAAGTAACCTTGATGATGATGTTAATTCCTCCACACACTCCACTTAGGACTGTTA TGAACACTTGATGATGATGATTTAAATTCCTCCACACACA	TOGANATTGGATCACARROTATACAAACTTGRAJTTGGCTIGTATTACCGAGTAATGGAAT FORGAATTGGATTGTTTTTTTTTTTTTTTTTTTTTTTTTTT	HTIGALTTTI ACAAAGTGALGGAAA HTIHHTIHHTHHTHHTHH HTIGALLITTACAAAGTGALGGAAA AARGALAAAGATTAGAAGGATGRO HTHHHTHHTHHHTHHH AARGALAAATAGAAGGATGHHH
662 662 794 722 854 782 914	9442 902 1034 962 1094 1052 1154	1082 1214 1142 1274 1202 1334 1262 1354	1322 1454 1382 1514 1442 1574 1502	1562 1694 1622 1754 1682
3 6 5 6 5 6	8 8 8 8 8 8 8	5 8 5 8 5 8 5 8	\$ 8 5 8 5 8 5 8	5 8 5 8 5

```
1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2834 AGAAACHGGGAGAAAATTGTACLEGAAGAGGAAAAGGAAAAAGAAAATGAATA 2893
                                                                                                               1742 GAGAAGGACCAACTGATCACCTTGAALGTGCCTTGTCCTCTTAALCTTGCTCCAGAALA 1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IGICACTANTACTCACATICCICGAAGCCTIACAAGIIICCTAGIICACCCTTAGGGA 2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2654 TCGGGACTTCTCAGAAGTTCCAGAAATAAATCAGATGGTATGTAACAGGGACGGTGTGC 2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2714 TCBABARGABARGERGABARGERACOTCOTABARCAGIGABABARACOTAGOTIFSAIA 2773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2642 TTGAAGGATCAGATGAAGGAGATGAAGTAAAGATG1GGGAGGAGAGGTGCAAA111FAGC 2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCACACACTGCAGCAGATATGTATTTTTTTTTAAGATCTCCAAAGAAAAAAAGTTCAA 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1874 GAGAAGGACCAACTGAICACCTTGAATCTGCCTGTCTTAATCTTCCTCTCCAGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1982 ATCTCCGCTAAATACACTTTGTGAACGCCTTCTGTGAGCACCCAGAATTAGAACAIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2474 TOLGACCAATACCTCACAATCCTCACAAGGCTTACAAGTTTCCTAGTTCACCCTACAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2774 ITGAAGGATGAAAGGAAGGAAGAATAAAGALGLGGGAGGAGTGGAATTTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2174 TCAPCTGRAND TELLOPORAGEM AND TELLOPORAGEMENTARIA CONTRACTOR CARACTERISTIC TO THE CONTRACT OF THE CONTRACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTTGGACCAAATTATGATGTGTTCCATCTATGCCATA1GCAAAG1GAAGAALIA1AGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAAACGTGTTTTGATCAAAGAAGAGGAGTATGATTCTATTATAGTATTGTAACTCGG
                                                                                                                                                                                                                                                                                                     TOANACHGTTTTGATGAAAAAAAGAGGAGTATGATTGTATTATAGTTGTATAACTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2534 TIOTIGGAGGGAACALCIAIAIIICACCCTGAAGAGICCAIAIAAAAIIICAGAAAGACIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2594 IGGCAACAACAAAAAIGAAIGCAAGAICAAGAAIGIIAGIAIGGIGAAICAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1922 AGAAGCCAFFIGAAFFGFAGTGFFFFGAGTGFFFFAFAAAAAAGTGFATGGGCFAGGGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2462 TOCCAACACAACAAAAATGACTOCAAGATCAAGAATCTTAGTATGAATTGGTGAATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1862 CIACHTHAAAIICIATIBGAAAIGGAGAGACAGAAGAGAGAGCIGAGCCIICCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1994 CIACGCGTCTAAATTCTACTGCAAATGCAGAGCAACAAGCAACCTCAGCCTTCCAGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2160 TIMAMITTANAMITATIGIAM TANGGAINI MAGGAINI MAGANAMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCTESTA BLANCATOTATATTTCACOLLAAAABOOATATAAAATTLABAAABO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 e
e
e
e
e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ίδ
•••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _{\Sigma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qa ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
```

```
q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                             ô
                                                                                                                      ò
                                                                                                                                                     9
                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
2894 BYA FORATARIZIYAAAGAA BAABAAAATSABABATIZTICABUARIZITBOTISOACITIGIT 2953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62 AAMMONGGGAAMMONGGGGGGGGGGGGGGGAAGAAGAAGAAGAAGAGGGGGG 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80. 88; Score 2853.2; DB 4; Leggth 2995; 99.98; Pred, No. 0;
                                                                                                                                                                                                             Mancyal, Daniel C.
TILLE OF INVENTION: Recombinant Adenoviral Vector and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS: ADDRESSE: ADDRESSEY: Lownsend and Grew LLP
                                                                                                                                                                                                                                                                                                           Two Embarcadoro Center, Eighth Floor
                           OTHER INFORMATION: /product-"kH"
/note-"tetinoblastoma tumor suppressor"
SEQUENTE DESCRIPTION: SEQ ID NO: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/LOCKET NUMBER: 016930-000920US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  U; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/128,673A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/142,669
FILING DATE: 25 cct 1993
APPLICATION NUMBER: US 08/233,669
                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUIER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DGS/MS-DGS
                                                                                                                                                                                                                                            Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Smith, Limothy S.
REGISTRATION NUMBER: 35,367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILLING DATE: 25-Oct 1994
CLASSIFICATION: +Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (415) 576-0200
TELEPAX: (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILLING DATE: 26-APR 1994
ALTORNEYZAGENE INFORMATION:
                                                                                                                                                                                   Gredory, Richard J.
                                                                                                                                   Sequence 7, Application US/08428674A Patent No. 6210949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGIH: 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                               THRRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139..2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE PHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                          CITY: San Francisco
                                                                                                                                                                                                 Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                  ZIP. 94111 3834
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                        California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMALION FOR SECTION NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                            NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE LYPE: CONA
                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION:
                                                                                                                                                                                    AFFLICANT:
                                                                                                                      US OB 328 673A 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 08 328 673A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 2855;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Onery Match
                                                                                                        RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
```

```
1142 TGAACACTATCCAACTAATGATGATGATTTTAAATTCAGGAAGTGATCAACCTTCAGAAA 1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1202 ATCTGATTTCCTATTTTAACAACTGCACAGTGAATGCAAAAGGAAAGTATACTGAAAAAGG 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        974 AAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATACTTT TOTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .034 TIATGAATTCTCTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTTTCTA 1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              962 AACCATACGAAGAAATTTATCTTAAAATAAAGATCTAGATGCAAGATTATTTTGGATC 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             094 AACGATACGAAGAATTTATCTTAAAAATAAAGATCTAGAAGATTATTTTGGATC 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1022 ATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTTGAAACACAGAAACACAGGAA 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       842 AAGAACATGAATGIAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTIATACCTT 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  902 TTATGAATTCTCTTGGACTTGTAAGATCTAALGGACTTGGAGAGGLTGAAAALCTLTGTA 961
                      802 GGGGAATCIGIATCITIATIGCAGCAGIIGACCIAGGIGAIAIGICGIICA LELIACIG 361
                                                                                                                                                                                                                                                                                                                               4.34 GGGGAATCTGTATTGCAGCAGTTGACCTAGATGTCGTTCACTTTACTG 493
                                                                                                                                                                                                                                                                                                                                                                            494 AGCIACAGAAAAACAIAGAAAICAGIGCAIAAAIICTIIAACIIACIAAAAAAAAAIIG SSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     542 GITCGATATCTACTGAAATAAATTCTGGATTGGTGCTAAAAGTTTCTTGGATCACATTTT 60)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             602 TATTAGCTAAAGGGGAAGTATTAGAAATGGAAGATGTTGTGTTTTGATTTGAGTTAA 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             782 GGAGTIGCACGGATAGCAAAACAACTTAGAAATGATACAAGAATTATTGAAGTTGTGTA 841
                                                                                                                                                                                         242 AGAAAGTIICATGTGGGAGIATIGGGAGGIIAJAJICAAAAGAAAAAAGIACII (U)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          422 ATACCAGTACCAAAGTTGATAATGCTATGTGAAGACTGTGAAGAAGTATGATGTATTGT 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      662 IGCTATGIGICCTIGACIATITIATIAAACICICACOCOCATGIIGCICAAAGAACCAT 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 182 CATTATGTCAGAAATTAAAGATACCAGATCA FGLCAGAGAGAGAGGTTGGTTAACTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
```

139 132 145 138 151 151 157	150 156 160 162 162 175 181	174 187 180 193 186 154 172	211 214 204 217 210 210 223	2 2 2 2 3 5
TICCTATITITAACAACIGCACAGIGAATCCAAAAGAAAGAAAGAAAAAAAAAA	ACACATTITICALATGICTTATION CONTRACTORAGE TO ACACATA ACACATTITICALATGICTTATION CONTRACTORAGE TO ACACATATA ACCACACATATA ACCACACATATA ACCACACATATA ACCACACATATATICALATATICACACACATATATATATATATATATATATATATAT		MGCCATGAAATCTACCTCTTCACTGTTTATAAAAAAGTGTATCGGGAACCATGAAATCTACTCTTCACTGTTTTATAAAAAAGTGTATCGGGAACCATTGAAATTTATAAAAAAAGTGTATCGGGCATTTATAAAAAAAGTGTATCGGCTTCTCTCTC	THE SECOND AND LARGE AND THE STANDARY AND THE AND TRANSPORTED AND THE
1344 1262 1364 1322 1454 1514	1642 1574 1634 1652 1662 1622 1754	1882 1942 1874 1874 1954 1954 1956		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
a 3 a 3 a 3 a 3 a 3	5 3 3 3 3 3 3 3	8 8 8 8 8 8 8	: : 5	8

```
27.62 - 8777-931, 12777-2007-2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2003, 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2654 TICHGGACTTCTGAGAAGTTCCAGAAATAAATCAGAIGGTAIGTAGTAACAGCGACCGIGTGC 2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2774 TTGAAGGATGAAGGAAGGAAGTGGAAGTAAAGGATGTGGAGAGAGTTGAGC 2833
2414 TCTTCATGCAGAGAPTGAAAAYAAATATTTGYAGTAGGTTCCAGGGGGGGGGTAGCT 2473
                                                                                                                                                                                                                                            2462 PEPETANASSIANOAFITATATITPANGGGTSANGAGTCCATATAAAATTTCAGAAGGG 2461
                                                                                                                                                                                                                                                                                            2534 PPPPPGGAAGGAAGAAGATCYATAPTTGACCCCPGAAGAGTGCAYATAAAATTTGAGAGGCC 2593
                                                                                                                                                                                                                                                                                                                                                                                                                  2452 TOCCARCACCAACAAAAATGACTGCAAGATGAGAATGTTAGTATGAAFTGGTGAATGAT 2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2594 TOTOTARCHARCAAAAATGACICCAAGAICAAGAAICTIAGIATCAATIGGIGAATCAI 2653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2714 TCAAAAGAAGGGGAAGGAAGGAAGCTCCTAAAACACTGAAAAACTACSCTTTGATA 2773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2642 TTGAAGGAPTAGATGAAGCAGATGGAAGTAAAGATCPGGGAGGAGAGTGGAAATTTGAGG 2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2522 PPORCAMPRETSAGAAGTPREAGAAATAAATGAGATGSTATGTAAGAGGCGACCSTSFGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: AFFI PTATEN BUMBER: US/PS/PSSSSSSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2822 TACACCTICTICANTICALTECTICACIONACACACACTO 2859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2954 TACACCTCTGTGGATTCATGTCTCTCACACATGGACTG 2991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E: Choate, Hall & Stewart
Exchange Place, 53 State Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tumot Suppressor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 33,407
PPEPERNEW-SZP.YZET YNUMBER: DF01 209
TELECOMMUNICATION INFORMATION:
FELECHEN (617) 227-5020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1. Approvation Hsperstands
Patent No. 5262321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Livingston, David M. APPLICANT: Ewen, Mark E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: 289374
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (617) 227-501
(617) 227-7566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19910531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Massachusetts
. n s A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Kennedy, Bill
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 1 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILLING DATE: 19
CLASSIPLOATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hoston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
US-07-708-962-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMERY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STAFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . qq.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  r
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90
                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
1922 ABAAGO ATTGAAATCTAGGTCTGTTTGAGTGTTTATAAAAAAGTGTAGGGGTAGGGT 1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1940 ACAGGCCAAAGAGAAGTGGGTCCTTAGCACTATTTTACAGAAAGGTCTATCATTTGGCAA 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1982 APPIGNAMIAAATAMATHUTUGAAAGGGEFFGTGTGTGTGAGGAGGAGATTAGAAGATA 2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000 GEGENANCETIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIANGERIAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2057 AGATA FRANCEGI I FROAFFICACITTAG FRACTOROGICALCI AA FGAAAGAGGG - 2116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2117 ATTEGRATISACTIONICOTITICATORICATORIAAAN STABA 2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2162 ATTTGGACCAAATTATGATGTGTTCCAIGTATGGCATATGCAAAGTGAAGAATATAGACC 2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2042 TCATCTSSASSCOTTTTCSASSAAACSCTGCAGAATGAGTATGAACTCATSAGAGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.9%; Score 68.8; DB 1; Length 2808;
54.1%; Pred. No. 1.2e-07;
tyo = 0; Mismatches 147; Indels = 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Antonio Giordano
TITLE OF INVENTION: "TUMOR SUPPRESSOR PROTEIN PRRZ,
TITLE OF INVENTION: RELATED GENE PRODUCTS, AND DNA ENCODING
TITLE OF INVENTION: THEREFOR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Temple University of The Commonwealth
ADDRESSEE: System of Higher Education
STREET: 406 University Services Building
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OMEDITER REMINABLE FORM:
MEDIUM TYPE: Diskette, 8.50 inch, 720 Kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41.14 3017.807.80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 6056-188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Application US/08105493A
Patent No. 5457049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: August 12, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEGISTRATION NUMBER: 43,073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LLLL TOAMACOTOTITICATOMAN 2241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22.87 ALACAAGEGIREIGEGGAAA 2256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERALING SYSTEM: MS-DOS
SOFTWARE: WordPerfect 5.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        dest Local Similarity 54.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                             LENGTH: 2808 base pairs
TYPE: NUCLEIC ACID
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 170; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TORRENT APPLICATION DATA:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pennsylvania
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Mullins, J.G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18M PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                TOPOLOGY: linear
MOLECULE TYPE: CONA
HYDOLHELICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . S. A.
                                                                                                                                                                                                                                                                                                                                   ANTI SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US OB 106 434A 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY
                                                                                                                                                                                                                                                                                                                                                                                US 07 708 962 I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Overy Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
```

```
2489 APPROGACCACTTATTATTSTOCOATTTATCTSTOCAAAGST OF AAAAGAAGATA 2548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2102 ATTEGNORAMITALGAEGIGIICOALGIAIGGAIAIAGGAANITGAAAGIGAAAGAITELMOACI 2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2262 TIMMATICAMAMICATISIAMCASCATACAMSMATCITICITATISITAMAMANANIA 2221
                                                                                                                                                                                                                                                                                                                                                                            1982 ALCHOCOGOTIAAALACACIIIGIGAACOCCIIGIGIGIGIGAGAACACOAGAATTAGAACAAT 2041
                                                                                                                                                                                                                                                               0; Mismatches 148; Indels 4; Gaps
                                                                                                                                                                                                                            1.9%; Sente 68.2; DB 1; Length 4249; 54.0%; Pred, No. 1.8e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seidel, Gonda, Lavorqua & Monaco, P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     THILE OF INVENTION: "LUMOR SUPPRESSOR PROTEIN HILLS OF INVENTION: PRB2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Diskette, 3.50 inch, 720 Kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 6056-188 DIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1800 Two Penn Center Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 08/106,493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application US/08429264
Patent No. 5532340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2222 TOAAACCTCTTTTCATCAAAC 2242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2609 ATAGAAGIGITITGATAAAAG 2629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 30,480
TELECOMMUNICATION INFORMATION:
                 THLEPHONE: (215) 568-8383
TELEFAX: (215) 568 5549
TELEX: No. 54570490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WordPerfect 5.1
                                                     TELEX: No. 54570490 INFORMATION FOR SEQ ID No: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antonio Glordano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: August 12, 1 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: MS-DOS
                                                                                          SEQUENCE CHARACHERISHES:
LENGTH: 3249 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                          Ouery Match
Best Local Similarity 53.0%
Matches 170; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                               STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pennsylvania
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 1800 TWO Pe-
CILY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18M PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Monaco, D.A.
                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Autonic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFT WARE:
                                                                                                                                                                     ; TOPOLOGY:
US-08-106-493A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
US-08-429-264-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                   TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ö
                                                                                                                                                                                                                                                                                                                                                                                                               7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ::0
```

```
ã
                                                                                                                                                                                                                                                                                                                                                                        2.) 2 ATTIGGACCAAAITAFGATGTGTTGCATGTATGGCATAIGCAAAGTGAAGAATATAGACC 2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2489 ATCLEGACACTATIAATGTGTGCCATTATGTGCCAAAGGTCACAAAGAAGATA 2548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2049 ACTOCTION AGAINATATION TOTAL AGAINS AND ACTOCAGASON AGAINST 2608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1982 ATCTCCGGCTAAAIWCACTTIGIGAACGCCTTCTGTGAGCACCCAGAATTAGAACATA 2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2042 TCATCTOGACCCTTTTCCACCACACACACAGAATGAGTATGAGTCATGAGAGACAGGC 2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2154 IIAAAIICAAAAAICAIIGIAAGAGCAIACAA66AICIICCICAIGGIGIIGAAGAGAGAI 2221
                                                                                                                                                                                                                                                                                                                            D: Mismatches 148; Indels 3; Gaps
                                                                                                                                                                                                                                                                             Ouery March 1.9%; Score 68.2; DB 1; Length 3249; Best ineral Similarity 53.0%; Pred. No. 1.8e 07; Matches 170; Conservative Or Mismatches 148; Indels 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Glordamo, Antonio
APPLICANT: Haldi, Alphonso
1111E.OF INVENTION: MCTHOUS FOR THE DIAGNOSTS AND PROGNOSTS
1111E.OF INVENTION: OF CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADORESSEE: SEIDEL, GONDA, LAVORGNA & MONACO, P.C.
SIREEL: Suite 1800 Two Penn Center Plaza
CLIY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM LYPE: Floppy disk
COMPUTER: IBM PC compatible
OFTEALING SYSTEM: PC-DOS/MS-DOS
S-FTWARE: PatentIn Release #1.0, Version #1.30
ARPHICATION DATA:
APPLICATION NUMBER- FS/A08/883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8321-13 US1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Segmence 1, Application 05/08832883
Patent No. 5807681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2222 TCAAACCTGTTTGATCAAAG 2242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25 19 AIAGAAGIGITITGAIAAAG 2629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30,480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FELECOMMUNICATION INFORMATION:
TILE COMMUNICATION INFORMATION:
                 | HEEPHONE: (215) 568-8383 | TELEEAX: (215) 568-5549 | TELEEX: No. 5532340e | INF. MAATION FOR SEQ 1D NO. 1: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (215) 568-8383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALLERNEY/AGENT INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER:
                                                                                                                                    LENGTH: {249 base pairs | YPPE: nucleic acid | STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E: Monaco, Daniel A ISTRATION NUMBER: 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEMITER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
                                                                                                                                                                                                           : ToPoLoGY: linear
US OR 424-264-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILLING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRUBERCHE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US 08 842 883-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :UNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       â
```

```
1922 AGAAGCCAFFGGAAATCTACCTCTTTCACTGTTTTALAAAAAAGTGTAFGGGCTAGCCT 1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2552 ATAGAGGAAGAAGAGGGTTTATTTTTTAGAAAGGTATAGGTTTTAGAAAGGTATTAGGAG 2611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2042 HOARPTROAPPRITIETTE GASSACACACACACAAATGACHATGAACTSATGAACACACACTS 2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2102 ATTTGGACCAAATTATGATGTGTTGGATGTATGGGATATGGAAAGTGAAGGTATAGATTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2729 ATCHGGACCACTTATTAATGTGTGCCATTTATGTGATGGCAAAGGTCACAAAAAAATA 2788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2162 TIANATETAKAARITATEGIAATAATAATAATAATAITITTI OMIGAISIISASSASAGAI 2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2789 AGTOCTTOCAGAACATTATGCGTTGTTATAGGAGTCAGCCCAGGCCAGGCGTG: 2848
                                                                                                                                                                                                                                                                                                                                              Cucry Match
Best Local Similarity 53.0%; Prod. No. 2.2e-07;
Matches 170; Conservative 6, Mismatches 148, Indels 3; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1982 ATCTCCGGGTTAAAIACACTIIGIGAAGGCHIGIGIGIGAGCACCCAGAATTAGAACAIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Search completed: January 17, 2003, 18:27:14 Job time : 103.93 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2222 TCAAACCHCTTTTCATCAAAC 2242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2849 AIAGAAGTGTTTTGAIAAAAG 2869
INFORMATION FOR SEQ ID NO: 1:
                                                      1: 4853 base pairs
   nucleic acid
   DEDNESS: double
                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                             70.3489
                                                                                                                                                TOPOLOGY: linear MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                     CDS
                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                     NAME/KEY:
                                                                                                                                                                                                                                                             ; LOCATION:
US-08-832-883-1
                                                         LENGTH:
```

```
Copyright (c) 1993 - 2003 Compugen Ltd.

OM nucleic nucleic scarch, using SW model

Mun on: January 16, 2004, 15:20:22 ; Scarch time 59:6055 Seconds

(without alignments)

14944.909 Million cell updates/sec
```

Diffe: US-09-026-459A-40 Perfect Score: 4392 Sequence: L-GCCALCALGGALITIACLGC......AAATGAGGALTALTGATAGT-3392

Scoting table: HebNTHY NGC Gapext 1.0

Total number of hits satisfying chosen parameters: 882724

441462 seqs, 154448481 residues

Secare ched;

Minimum DB seq length: 0 Maximum DB seq length: 200000000 Post processing: Minimum Match 6% Maximum Match 106% Listing first 45 summaries Latabase : Issued Patents NA:\*

2: /cmp\_5/pt-datajlyinay5A\_rown seq.\*
2: /cmp\_5/pt-datajlyinay5A\_rown.seq.\*
4: /cmp\_5/pt-datajlyinay5A\_rown.seq.\*
4: /cmp\_5/pt-datajlyinay5A\_rown.seq.\*
5: /cmp\_5/pt-datajlyinay5A\_rown.seq.\*
6: /cgn\_2/pt-datajlyinay5A\_rown.seq.\*

Prod. No. 18 the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARTES

Fossal 1	1	COURTY		3		
ž	2001	Ξ Σ Σ	Maten Length 198	Ξ	01	Description
-	4.222.4	0.44	7 7 7 7		US OB 048-760-1	Sequence 1, Appl
٠,	1222.	0.134	77.7		775 SH C 48 74S 2	Serial new 2, Ap
~	1222.4	19.7 (3.6)	1212	~1	US 08-479-09] ]	_
÷	1.222.4	(1.04)	2.5.2.5	^1	0.51 0.8 - 470 - 0.91 2	Sequence 2, April
u*	26.91	1.1. 4	\$6.62		TE 08-504-459-5	:4
÷	1647	1.1	\$667	-1	US 08 482-627-4	Sequence 4, Ap
1	76.41	1.4	\$662	~	11S 08-801-092-4	Sequence 3, Ap
Ξ	[6,47]	1.1.1	16.67	4	US:09:415-114-4	~
	26.83.4	. 1 .	\$6,6,7	_^	PC1 US94 10357 1	
=	25.88	7.1.7	96,6,7	~4	2-889-656-80-80	7,
_	26.86.4	7.5	16.6.7		TO 08 328 673A 7	۲۰-
17	x.	0.2	HUH7	-	07-7	Sequence 1, Appl
Ť	68.2	0.7	1249	-	US 08 105 493A 1	À
14	74 : BS	6.7	6.428		US UB 429 264 1	_`
-	5.83	0.7	4854	-	US 08 832 883 1	Sequence 1, Ap
16,	6.H.Z	7.0	4H53	7	US:08-842-877:1	Sequence 1, Appl
7.7	6,1,6	·		~ 1	US-08-152-721B 1	Sequence 1, Appl
Ĭ	 	1.7	7218		-08-232-	Sequence 14, Appl
-	15	- ·	1747	₹	09 09:213 2930:2	ાં
0.7	44.6	<u>.</u> .	1804	~	US - 0.9 - 1.44 - 0.01C 7.99	Sequence 799, App.
7	9.44	Ť.:	15364	÷		Sequence 139,
7.7	44.4	1.4	70907	₹	US 09-641-638-651	
<b>\$</b> 7	44	¥ : 1	19124	-4	US:08-487-826B-13	Sequence 13, Appl
7.4	4 5.8	1. *	1056	7	US -09 - 144 - 001C - 1550	Sequence
ή,	7 + 7			4	292-609-010 by Su	
7.7	4.4	_:	605	₹"	707-582-509-60 30	
2	~	-	1	٠.	CONT. 8 18 68 8 60 60 500	

	\$2 2 2 2 3 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3
202, Appliant Applian	Gebre Products
Sequence of the sequence of th	r apy .
	Control of the Albert
202 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	um Tamor Suppressor Genes, Gen fumor suppressor come Therapy, 11cas 6. Version #1.25 750 (125-999
4 JUN 10 4 H 10 JUN 11 T 4	ication US/OBORH760  TION:  a. Hong-Ji  au, Shi-Xue  wenedict, William E.  WILON: Broad Spectrum Tamor Su  WILON: Broad Spectrum Tamor Su  WILON: Broad Spectrum  E ALEESS:  Pornife & Edmends  F ALEESS:  Pornife & Edmends  York  I.S.A.  - 271  SA Avenue of the Americas  York  I.S.A.  - 271  SA Avenue of the Americas  York  I.S.A.  - 271  SA Avenue of the Americas  York  I.S.A.  - 271  SA Avenue of the Americas  York  I.S.A.  - 271  SA Avenue of the Americas  York  I.S.A.  - 271  SA Avenue of the Americas  York  I.S.A.  - 271  SA Avenue of the Americas  York  I.S.A.  - 271  I.S.A.  - 27
25.2 25.2 23.2 23.2 23.2 24.2 25.2 25.2 25.2 25.2 25.2 25.2 25	HP 60  Spectrum Tamor Suportion Tamor Suportrum Tamor Suportrum Tamor Suports FOR 100 Americas  TO Americas  TO Americas  TO Americas  TO Americas  TO Americas
A L C C C C C C C C C C C C C C C C C C	SZOBUSH760  1 c c c c c c c c c c c c c c c c c c
ਚਿਕਾਰਦਾ ਪਿਲਾਵਾ ਪਿਵਾਵਾ ਪਵਿਚਾਲਵਾ	USZOBO3H7  Ji  William Broad Spe Methods paragraph of the colonger ible colonger paragraph is 28.45.  ATION:  28.45.  MREH: 74.  ATION: 28.45.  ATION: 1. 28.45.  ATION: 1. 28.45.  ATION: 1. 28.45.  ATION: 1. 28.45.  British paragraph ible colonger ible c
569 5852 5852 1184 1184 11864 11864 1912 821 837 860 860 860 860	ication US/0  IION:  U. Hong-Ji U. Hong-Ji U. Shi-Kuc enedit, Will MILLON: Method Dermic & Ed Dermic &
	Application US/OBO (H760)  Application US/OBO (H760)  WE WANTION:  WI: Mu, Hong-Ji  WI: Hu, Shi-Wal  WI: Hu, Shi-Wal  WI: Brought, William F.  ** INVENTION: Heldeds for lumor  F SEQUENCES: 4  ** HERLE ALEESS:  ** New York  W:
त्र व्यवस्य वृत्यस्यक्ववस्य १९४८ वि.च.च.च.०००० १९७७ वि.च.च.च.च.च.च.च.च.च	
ими тими тим ф ф ф ф ф ф ф ф ф ф ф ф ф ф ф ф ф ф ф	US-0B-0-18-760-1 Sequence 1, A PAPLICANT: APPLICANT: CONTRY: CONTRY: COMPUTER F MEDIUM TO COMPUTER F COMPUTER
υ υ υ	30 30 30 30 40 40 40 40 40 40 40 40 40 40 40 40 40

16.	TAGATGARATOTOTTEATTEATTARATANATANAAAAANTATAGAAATEN ERETEREN ER ERETEREN ERETEREN ER	228 66 288
1 10	CAIAAATTCTTTAACTTACTAAAAGAAATTGATACCAGTACCAAAGTTGATAATG	126
28,	- ICAAGACIGITGAAGAAGTATGATGTATTGTTTGCACTCTTCAGCAAATTGGAAAGGACA - ILLIILIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	348 186
4 8	** FGTGAACTTATATATTGACACACCAGCAGTCGATATCTACTGAAATAAAT	408 246
् क क	+ TIGGTGCTAAAAGTTFCTTGGATCA'ATTTTFATTAGCTAAAGGGGAAGTATTACAAATG	468 306
46. 50.	+ GAAGAIGAICIGGIGALFIPALITCAGTIAATGCTAIGIGECTTGACTATTTATTAAA {	528 366
367	OCCIONOCIGGOARGITGCIGAAAGAACCAIAIAAAAAGAGGIGIIAIAACCAITAATGGT FEELELEELEELEELEELEELEELEELEELEELEELEELE	588 426
,88 7	TCACUTORAN POCCARROCARD TRANSACARTS AND	648 486
<del>-e</del> 100	9 AALGALACAADAATTATTGAAGTTCTCTGTAAAAAAAAAATGAATGAATAATAAAGGGG 	708 546
े च	9 AAAAAIGITTATTCAAAAATTTATACCTTTTATGAATTCTCTTGGACTTGTAACATCT	768 606
	• AAESGACTICCAGAGGIIGAAAATGIITCTAAACGAIACGAAGAAATITAICTIAAAAT •	828 666
42.	9 AAAGAICIAGAIGCAAGAILAITTIIGGAICATGAIAAAACICTTCAGACIGAILCIATT 	888 726
7.2		948 786
च ≪	9 AITOCISCACACACICCAGITAGGACTGITATGAACACIATCCAACAAITAATGATGATT SISSISSISSISSISSISSISSISSISSISSISSISSIS	1008 846
301	+ HAAAHICAGCAAGIGALCAACCHICAGAAATCIGATHICCEATHTAACAACIGCACA 10	1068 906
9 (b)	JGGAATOCAAAAGAAAGTATACTGAAAAGAGTGAAGGATATAGATATACATGTTTAAAGAG HILLHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	1128 966
11.2.	AAAIIIGCIAAAAATTAAAAATTAAAATTAAATTAAATTA	1188 1026
11.8%	9 GGAGITGGCITGTALLACCSAGTAALGGAAPCCALGCTTAAATCAGAAGAACGATTA : HTTLLTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	1248 <u>.</u> 1086

	1369 1369 1369 1369 1369 1369 1369 1369	10
. A .	2269 0	TIGAAGAGTCCATATAAAATITCAGAAGGCTGCGCAACAAGAAGAAAAAAGAGTCCAAGA 2328
2	2107 C	TIGAAGAGTECATATAAAATITCAGAAGGICTGECAAGAGAAAAAAAATGAETGAAGA 2146
ς	2329 T	FCAAGAATCITAGIAICAAITGGIGAATCAITGGGGACITCIGAGAAGITGCAGAAAAIA 2388

Tue Jan 21 10:02:45 2003

```
2587 THEFT HITTELLITTETT THE THEFT HITTELLITTETT FOR THE THEFT FOR A 2646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HELLITELLE HELLE H
                                                                                                                     2389 AATCAGATGGIAFGIAACAGCGACCGIGIGGTGAAAAAAAGAGTGGTGAAGGAAGCAACCCI 2448
                                                                                                                                                             2287 CTTAAACCACTGAAAAAACTACACTTGATATTGAAGGATCAGATGAAGCAGAGATGGAAGT 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2589 ALGEGACTOTATAACTITGCCAGGITCTGTTAIGGCCACATETAATALCTTCAGCTCTT 2748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2989 PATATADAGGIGH IGCICH GUTTTA DAAFTTA AFATTTA HATTTI ITTAA TTTAAC 3048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  $109 ATTCACCAAAATTATCTTCAACTCTTCTGCAAAAATGGATATTATTAGAAAATTAGAAAAA 3168
                               2167 ICAAGAATTITAGTATCAATTGGTGAAFGATTGGGGAGTTGTGAGAAGTTGGAGAAAATA 2226
                                                                                                                                                                                                                                                                                            2449 CTFAAACCACLGAAAAAGTACGCFFTGALATEGAAGGTGAGATGAAGGGAGGTGGAAGT 2508
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2509 AAACATCICCCAGGAGAGICCAAAIIICAGCAGAAATIGGCAGAAAFGACTTCTACTCGA 2558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2569 ACACGAATGCAAAAGCAGAAAATGAATGATAGCATGGATACCTCAAACAAGAAGAAGAAA 2628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2407 ACAGGAATGGAAAAGAAAATGAATGATAGCATGGATAGCTGAAAGAAGAAGAAA 2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2629 IGAGGATOTCAGGACOTTGGTGGACACIGTGTACACTTOTGGATTCATTGTGTGAGAG 2688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2467 IGANGATOTOAGGACOTTGGTGGACACTGTGTACACCTCTGGATTCATTGTCTCTCACAG 2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2749 ITTGFGGATATAAAATGFGCAGAFGCAATTGTTFGGGFGATFCCTAAGGCACTTGAAATG 2808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2809 TEAGTOATTOFTATATACAAGALTGAAAAFCTTGFGFAAATGOTGOOATTFTAAAAAGT 2868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2869 TOTAGNAGATTOTTPOOLOTTPOMAAGTAAAATTGMTGTGTTTATGGATAGNAAGAATG 2928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2827 CATATAGGIGATGITTGGICTGITTITATIAATITATAGIATATTITITTAATTTAAG 2886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8049 ALGAACACCITAGAAAALGIGIGITATGIATGTTGCAAATGGAATTTGALTGAGTGCCC 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2947 ALLOACCAAAATTALCCTGAACTCTFCTGCAAAAAGGATATTATTAGAAATTAGAAAA 3006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3228 IGILLIAIAAAALI LIGGILLIAATIAAAAGGGGAAGGAAAGTATAAGGATATGA 3288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 067 ETHTHATAAATHIGGITHAALFAAAAGGIGGAAGGAAAGHAFAACGAFAIGA 3126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1289 TACTATCATACTACTACTGAAACAATTTCATACCTCAGAATGTAAAAGAACTTACTGATTAT 3348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8127 TACTATOALAGTAGTAGAAGAGATITGALAGGICAGAATGTAAAAAGAACTTACTGATTAT 3186
3349 IIICTICALCAACHAUGIIIIIAAAIGAGGAIIATIGATAGI 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                    â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 څ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
```

```
APPLICANT: Henedict, William F.
1711E OF INVENTION: Broad-Spectrum lumor Suppressor Genes, Gene Products and
TITLE OF INVENTION: Methods for Tumor Suppressor Gene Therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            050 TGTGAACTTATATATTTGAGAGAGGGGGGGTTGGATATGTACTGAATAAATTCHGGA 2991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2930 GAAGATGACTGGTGATTTCATTTCAGTTAATGCTATGTCTTGACTATTTAAA 2871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    409 IIGGIGCIAAAAGITICIIGGAICACAITIIIAIIAGCIAAAGGGAAGGIACIACAAAIG 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           229 CATAAATTOTTTAACTTACTAAAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATG 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          289 ICAAGACTGTTGAAGAAGTATGATGTTGTTGTTTGAAGAAAAATTATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      469 GAAGATGAIGTGGAITTGATTLCAGTTAATGCTATGTGTCTT LGACTATTATTAAA 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     529 CTCTCACCTCCCATGTTGCTCAAAGAACCATATAAAACAGTGTTGTTATACCATTAATCGT 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G. Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1; Longth 4242;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       i, indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Fatentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1223; Conservative 0; Missiatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 466 579 6012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/OB/038,760
FILING DAIE: 19930325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
COMPUTER: IHM PC compatible
OPPRATING SYSTEM: PC-EGS/MS-EGS
                                     Sequence 2, Application US/08038760 Patent No. 5496731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (212) 790-9090
TELEFAX: (212) 869-9741/8864
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28,462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 3232 base pairs NUCLEIC ACTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Poissant, Brian M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: double
TOPOLOGY: not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                      GENERAL INFORMATION:
APPLICANT: Xu, Hong Ji
APPLICANT: Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: not rel
MOLECULE TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: 0.S.A.
ZIP: 10036-2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
US-08-038-760-2/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-038-760-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH
                                                                                         Patient No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
```

2811 648 2751	708	768 2631	828 2571	888 2511	948	1008	33	12	1188 2211	1248	୍ଦ	1368 2031	1428	∞ -	4 10	1608	1558
7 - STELPACETCCCATCHGCTCAAAGACCATATAAACAGCTGTTATACCCATTAATGGT 8 - TCACCTSGAACACCCAGGGGGTTAGAACAGGGTGAACAGATAGAAAACAACTAGAA 1111111111111111111111111111111111	- AALGALACAAGAALTALTGAAGTTGTGTAAAGAACATGATGTAATATAGATGA 	OS AAAAAI TELLI	AATGGACTFCCAGAGGTGAAAAFCTTFCFAA 	29 AAAGAI 11111 78 AAAGAI	BY GACAGITITGAAACACAAGAAACACCCACGAAAAAGTAACCITGAIGAGGGGGGAATGIA TELETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTE 18 SACAGITTGAAACACAGAGAACACACAAGAAAACTAACCITGATGAAGGGGGGAATGIA	CCCACACACTCCAGITA 	5 3	F3 GTGAATCCAAAAGAAAGTATAC 	29 AAAIIIGGIAAAACTSIS 	99 - 07AGLICCOTTGLATTACCGAGTAATG 	4	99 IGGGCICTIGAGGTI 	THE CONTROL TO THE CONTROL OF THE STATE OF THE SAME OF THE STATE OF THE STATE OF THE STATE OF THE SAME OF TH	29 TACANAGTGATGGAAAGTTTATATCAAAGGAGAGACACAACTGACAGAAGGAATGATAAAA FELLELLELLELLELLELLELLELLELLELLELLELLELL	ACGATGTGAACATC 	49 FIAFITGATCTTATTAAACAATGAAAGGACCGAGACCCAACTGATGACCCTTGAATGT FEFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	UTIGICCICII 
76 28 28 5 60 79 5 60 79 5 60 79	~	~	7	47 B	8 4 52	~	1 7		Cy 11.	7	7 7		27 13 Jb 20	-4	29 14 Sie 13	Oy 15	en en

2028 1730 CCTGTAAGATCTCCAAAGAAAAAAAGTTCAACTAGGGGTGTAAATTCTAGTGCAAATGCA 1671 1670 GAGACAACCAACCICAACCITCCAGACCCAGAAGCCATIGAAATCIACCICICILICA 1611 1789 CIGITITAIAAAAAAGIGIAICGGCIAGCCIAICICCGGCIAAAIACACHHGIGAACGC 1848 1849 CHTCTGTGTGAGGAGGGAGAATTAGAAGATGATGATGAGGAGGGTTTTFGCAGGAGAGGCT.3 1908 1909 PAGAATGAGTATGAAGTGATGAGAGAGAGGGATTTGGACCAAATTATGATGTGTTGTTG 1968 1729 GAGACACAAGCAACCTCAGCCTTCCAGACCCAGAAGCCATTGAAA1C1AGG1G1C1010A 1788 2329 TCANGAAICTIAGIAICAATIGGIGAATCATICGGGACTICTGAGAAGITCCAGAAAATA 2388 1070 TCAAGAATCTTAGTATCAATTGGTGAATCATTCGGGACTTCTCAGAAGTTGCAGAAAIA 1011 2449 CCTAAAACCACTGAAAAACTACGCTTTGATATTGAAGGATGAGATGAAGCAGATGGAAGT 2508 2509 AAAGATGTGGGAGGAGGGAAAFITGAGGAGAAACIGGGAAAATGAGGTGTAGTGGA 2568 2569 ACACGAATGCAAAAGCAGAAAATGAATGATAGCATGGATACCTCAAACAAGGAAGAAAA 2628 2689 AIGIGACIGIAIAACIIICCCAGGIICIGIIIAIGGCCACAITIAAIAICTICAGCTCII 2748 1250 TEIGCAGTATGETETETETE AGGGGGGGGGTTAGTTGTGAGTAGGTTGAGATTGCTGAAGG 1191 2029 AAGGATCTTGCTCATGCTGTTCAGGAGACATTCAAAGGTGTTTTGATCAAAGAGAG 1310 TATGATTCTAFTATAGTATTCTATAACTCGGTCTTCATGCAGGAGTGAAACAAAAIAII 1969 TATGGCATATGCAAAGTGAAGAATAIAGACCTTAAATTCAAAATCATTGTAACAGCATAC 1430 PATGCCATATGCAAAGFGAAGAATATAGACCTTAAATTCAAAATCATTGTAACAGCATAG 2209 OPTTACAACTTTPOTAGTTOAGGGTTAGGGATTOGTGGAGGGGAAGATGTALATTTOAGG **q** qq ò õ Q g δŏ 5 ŝ οý q δ ें qq qq

```
APPLICANT: Benedict, William F. TILLE OF INVENTION: Broad Spectrum Tumor Suppressor Genes, Gene Produkts and TILLE OF INVENTION: Methods for Tumor Suppressor Gene Therapy.
2/49 ITTGFG/AIAIAAAALGHGAAHGHGAAHGHGGGGAAITCCTAAGGCACTTGAAATG 2808
                                                                     ZBO9 TIAGLCALIGITATITATACAAGITGAAAAGITGAAATGGTGCGGTTTAAAAAGT 2868
                                                                                                                                        2869 TOTACCASATESTITICO OF FOR AND AND CONTINUES CONTINUES ASSESSED.
                                                                                                                                                                                                                                                                                  2989 CATATACOTORICITICATITITATITATITATETATETATITITITITATETATA 3048
                                                                                                                                                                                                                                                                                                                                                         3109 ATTCASCAAATTATCTGAACTCTTGCAAAAATGGATATTATTAGAAAATTAGAAAAA 3168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (169 AALLACIAALLITAGAGALLAGALTITATITITACIATITGGAATCTGATALACTGTGTGTG 3228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1229 TCTTTATAAAATTTTGCTTTTAAATAAAAGCTGGAAGCAAAGTTATAAGTATAGA 3288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           289 TACTATCATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGATTAT 3348
                                                                                                                                                                                                             2929 SCOTTAGASTOSSAGIOCIGATAACCCAGGCCTGTCACACTACTTTGCCTTGTTGTAG 2988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         230 ANTIACTANTITIACACATIAGATITIATITIACIATIGGAATCIGAIATACTGIGGGT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3349 ITTOTTOATOGAAOTTALGITTITAAATGAGGAITALTGATAGI 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  50 TTFOTTGATGGAACITATGITTITAAATGAGGATTATTGATAGT ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/470,091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BO SW/SON OA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Application US/08470091
Patent No. 5912246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC FOS/MS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JUN-16-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              URRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Xu, Honga D. APPLICANT: Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10046 2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          U.S. A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALLY: New YOLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILLING DALE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SHINDER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET
                                                                                                                                                                                                                                                                                                                                                                                       =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                  3
                                                                                                                                        5
                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                             Ξ
                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                  Ė
                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \frac{2}{3}
```

```
169 GACCTAGATGAGA FGTGGTTGAGTTTTAGTGAGGTAGAAAAAAATALAGAAATGAGTG - 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 229 CATAAATICITIAACITACTAAAAAAATIGAIACGAGIACGAAGIIGAIAAIGGIAIG 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 409 ITGGTGCTAAAAGTTTCTTGGAIGACATIIIIAIIAGCIAAAGGGGAAGAIAIIACAAAIG 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      469 GAAGATGATETEGTGATITEAGITAATEGETEGTEGTEGTTAATTITATTAAA 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          307 GAAGATGATCTGGTGATTTCATTTCAGTTAATGCTATGTTGTCTTGACTATTTAFTAAA 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         529 CTCTCACCCCATGTTGCTCAAAGAACCATAAAAACAGCTGTTATACCATTAATGTT 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             649 AATGATACAAGAATTALTGAAGTICTGTGTAAGAAGAIGAALGTAALATAGAGGTG 708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                487 AATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATATAGATGAGGTG 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  709 AAAAALGITTATITCAAAAATITTATACCTTITATGAATICTCTTOGACTTOLAAAALCT 768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   769. AATGGACTICCAGAGGTIGAAAALCITICIAAACAIACGAAGAAATTTATCTTAAAAAT H28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   607 AATGGACTICCAGAGGTIGAAAATCTTICTAAACGALGGAAGAAATITATCTIAAAAAT 646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         829 AAAGATCTAGAIGCAAGAITATTTTIGGALGATAAAACTCTTCAGACTGAILCTAIA 888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sdep (p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                95.0%; Score 822.4, DB 2; Londth 8282;
160.0%; Pred, No. 0;
1999 - 0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 115,708,7038,760
                                                                                                                 TELEPHONE: (212) 790 9090
TELEFAX: (212) 869 9741/8864
TELEX: 66141 PENNIE
                                                              REGISTRATION NUMBER: 28,462
REFERENCELFORET NUMBER: 740
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                   INFORMATION FOR SEQ ID NO. 1:
                              ATTORNEY/AGENT INFORMALION:
                                                  Poissant, Brian M
                                                                                                                                                                                                       : 3232 base pairs
nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                              Matches 3224; Conservative
                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                       not relevant
                                                                                                                                                                                                                                       STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                             19..2469
                                                                                                                                                                                                                                                                       MOLECULE TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                 FILING DATE:
                                                                                                                                                                                                                                                                                                                          ; LOCATION:
US:08-470-091 1
                                                                                                                                                                                                                                                         ropollody:
                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                          IYPE:
                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <del>2</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ć
```

948	1008 846	1068 906	1128 966	1188 1026	1248 1086	1308	1368 1206	1428 1266	1488 1326	1548 1386	1608 1446	1668 1506	1728 1566	1788 1626	1848 1686	1908 1746	1968 1806
HE FANASTITIGAAACANAGAGAACACACGAAAAAGTAACCIIGAIGAAGAGGGGAAIGIA 	949 ATTOCTOCACACACTOCAGTTAGGACTGTTATGAACACTATCCAACAATTAATGATGATT 	1909 ITAAATICAGCAAGIGATGAACCEICAGAAATGIGAITTGCTATTTTAAGAGTGGACA II-IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	1969 GEGAATOCAAAAGAAAGTATACTGAAAAGAGGATATAGGATACATOTTAAAGAGGGGGGGGGG	1.29 AAAITISCIAAAGCTGGGGACAGGTIGIGGGGAAATIGGAICAGGGGATACAAACT 111111111111111111111111111111	189   GRAGIT CRATTOTA PER PARA PECATOCYTA ARPORA AGAGA AGATA ATA	3.447 DEPATTCAAAATTTTAGCAAACTTCTGAATGACAATTTTTCATATGTTTTTTGATATGGGGGGGG	. 409 TO TOTAL SAGISTIATATION OF A SAGISTAL CANADA SAGISTICAL SAGI	3-669 GEAACAGAFFIGETFICCCATGGAFFCFGGAATGFGCYFFAATTAAAAGCCFFFTGAFFFFT 	142 / TACAAAGTGATCGAAAGTTTATCAAAGCAGAAGGCAACTTGACAAGAAAGGAAAAAA JITTILLIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	1489 CATITAGAACGATGTGAACATCGAATCCATGGAATCCCTTGGATGGCTCTCAGATGCCT 1111111111111111111111111111111111	1949 HALLIGALCHALTAAACAALCAAAGACGGAGAAGGACGACTGALGACTTGAATCT 	1609 GCTGTGTCCTCTTAATCTTCCTCTCAGAATAATCACACIGCAGCAGATATGTATCTTTCT 1,111111111111111111111111111111	1889 POTGITAASATOTOGAAASAAAAASETEGAATACGGGTGTAAATTOTACTGGAAATGGAAATGGAAATGGAAATGGAAATGGAAATGGAAATGGAAATGGAAATAGGAAATAGGAAATAGGAAATGAAATGAAATGAAATGAAATGAAATGAAATGAAATGAAATAGAAAATAGAAATAGAAATAGAAATAGAAATAGAAATAGAAATAGAAATAGAAATAGAAATAGAAAATAGAAAATAGAAAAAA	1729 GAGACAGAAGCAACCTCAGCCTTCCAGACGCAGAGCCATTGAATCTACCTCTCTTTCA 1111111111111111111111	278.) CESTITIATANANAGIGIALOGO/TAGCCIATCTCCGGCTAAATACACTTIGIGAACGC (CESTITIATICI IIIIIIIIIIIIIIIIIIIIIIIIIIIIII	1849 CITCIGICIGAGO ACCCAGAATTAGAACATATCATCIGGACCGIIITGCAGCACCAC 	1909. CAGAATGAGTATGAACTCATGAGAGACACGATTTGGACCAAATTATGATGTGTTCCATG 
\$ £	7 2 2 3	55 G	हें हैं	÷ 3	5 1	3 £	§ 3	45 26	\$ £	ð :i	34 A	5 ±	3 3	35 E	§ ≘	\$ £	5 G

1969 TATGGGAIATGCAAAGTGAAGAATATAGACCIIAAAFICAAAAACAFIGIAACAGCATAG 2028 2269 CTGAAGAGTCCATATAAAATTTCAGAAGGTCTGCCAACAACAAAAATGACTCCAAGA 2328 2107 CTGAAGAGTCCATATAAAATTTCAGAAGGTCTGCCAACAACAACAAAAATGACTCCAAGA 2166 2329 TCAAGAATCTIAGTAICAATIGGIGAAICATIGGGGACTTCIGAGAAGTICCAGAAAAIA 2388 2509 AAACATCTCCCAGGAGAGTCCAAATTTCAGCAGAAACTGGCAGAAATGACTTCTACTCGA 2568 2347 AAACATCTCCCAGGACACTCCAATTTCACCAGAAACTGGGAGAATGACTTCTACTCGA 2406 2569 ACACCAATGCAAAACACAGAAAATGAATGATAGCATGGATAGCTCAAACAAGGAAGAAAA 2628 2407 ACACGAATGCAAAAAGCAGAAAATGAATGAIAGCAIGGAIACCTCAAACAAGAAGAAAA 2456 2629 TOAGGATCTTCAGGACCTTGGTGGACACTGTGTACACCTCTGGATTCATTGTGTCTGTGAGAG 2688 2527 AUGUGACUGTATAACUTTUCCCAGGTICTCTTTATGGCCACATUTAATALCTICAGCTCTT 2586. 2587 TTIGTGGATATAAAATGTGCAGATGCATTGGTTGGGGGAATTGTTGGGGGAATTGAAATG 2646 2809 THAGHCAPHGIPATHFFAHACAAGATHGAAAAFCTTGTGTAAAHCCTGGCATHFAAAAAGT 2858 2989 ÇAMATAĞĞIĞANĞITIĞÇIÇITĞILITIALIAATITIALAĞITALITILI (1AALILLAA) 3048 3049 ATGAACACCTTAGAAAATGTGTCTALCIALGIIGGAATGGGAAIIIGAIIGACIGGGG 3108 2689 ATGTGACTGTATAACTTTCCCASGITCIGITIAISSCCACATITAAIAIATCTICASGIGII 2748 2749 TITIGIGGATATAAAAFGIGCAGATGCAALIGTIINGGIGAFIICCLAAGCCACLIGAAALG 28UK 2869 IGIAGCAGAIFGIIICCICHTCCAAAGIAAAAIFGCIGTGTGTTTAFGGAFAGFAAATG 2928 2929 - COOCHTAGACHOOCHACHIOCHTAACCGAGGGCTGTGTGGACHAGTHTGGGGT 103 13 10 1AG - 2988 1987 TTGCAGTATOCTTGCACCAGGCCCCCTAGCTTGCACATACCTCACATTCCTCGAACC 1867 AAGGATCTTCCTCATGCTGTTCAGGAGAATTCAAACGTGTTTTGATCAAAGAAGAGAG 2149 The Astrigition Actagological Actagolog 2209 CONTACAAGUITOCTAGTICACCCTTAGGGATTCCTGCAGGGAACATCTALATILGAGGG 2467 TGAGGAPCTGAGGACCTFGGTGGACACTGTGTACACCTGTGGGATTGATTGTGTFAGAG 2647 TTAGTGATTGTTATTTATAGAGATTGAAAATGTTGTGTAAATGCTGGGGALTAAAAAGT qq : οy ŏ 9 9 q ò ò ò ò ò 셤 ò

```
FIGUR OF INVENTION: Broad Spectrum Fumor Suppressor Genes, Gene Products and
LIFLE OF INVENTION: Methods for fumor Suppressor Gene Therapy.
1109 ALLCACCAAAAIJALCCIGAACHTICIGCAAAAATGGATATTAGAAATTAGAAAAAA 3168
                                                                                                               2947 AFTCACCAAAATTAFCCTGAACFCTFCTGCAAAAATGGATATTATTAGAAAATTAGAAAAA 3006
                                                                                                                                                             4169 AATTAVTAATTITACAVATTAVATTITATTITAGTATGGAATCIGATATACIGIGIGCT 3228
                                                                                                                                                                                                                                                       4229 TGTTTTATAAAATTTTGGTTTTAATTAAATAAAAGGGGGAAGGAAAGTALAAGGATATGA 3288
                                                                                                                                                                                                                                                                                  4289 TACTATOATACTACTGAAACAGATTFCATACCTCAGAATGTAAAAGAACTTACGGATTAT 3348
                                                                                                                                                                                                                                                                                                                                                                                             4127 INSTRAIGATASTEM GAAACAGATITCATACCICAGAATGIAAAAGAACITACIGAITAT 4185
                                                                                                                                                                                        4187 TECHTOATCCAACTAAGAATTAAAGAGGATTATTGAAGA 3230
                                                                                                                                                                                                                                                                                                                                                                                                                                           4449 TITOTTCATCCAACTIATGTTTTAAATGAGGATTATTGATAGT 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95.08; Score 4222.4; DB 2;
100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Bateutin Release #1.0, Version #1.25
TORMENT APPLICATION DATA:
APPLICATION NUMBER: US/08/470.041
FILLIND IN 18 1995
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3409-072-699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/038.750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: 18M PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2, Application US/08470091
Patent No. 59]2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (212) 859 9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE OF NOMBER: 745
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION (212) 790 9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Poissant, Brian M
REGISTRATION NUMHER: 28,462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SECTION NOT 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4242 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SECUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANI: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      66141 PENNIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLLECTULE LYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16036 2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N.W. YOUK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E. S. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PESBLT 4
US 08 470 091 2/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ToPoLoGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENCTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIAIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        I ELEX
                                                                                                                                                                                                       Ξ
                                                                                                                                                                                                                                                                                                ÷
                                                                                                                                                                                                                                                                                                                                                 5
```

Length 3232;

```
1129 AAATTTGGTAAAGCTGTGGGACAGGTTGTGTCGAAATTGGATCACAGCGAAACTT 1188
                                                                                                                  4110 ICAAGACTGTTGAAGAAGTATGATGTTTGCTACTTCTTCAGCAAATTGGAAAAGAACA 4051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2930 GAAGATGATCTGGTGATTTCATTTCAGTTAATGCTATGTGTCCTTGACTATTTTAAA 2871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2750 AATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAAATGTG 2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2570 AAAGATCTAGATGCAAGATTATTTGGATCATGATAAAAACTCTTCAGACTGATTCTATA 2511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2510 GAGAGTTTTGAAACAQAGAAGAAGAAAAAGTAAACTTAATAAQAQAQAGAAATGTA 2451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 949 ATTECTICEACACACACTECASTIAGGACTGITATGAACACTALCAACAATTAATGATGATT 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FETTILLE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1009 TTAAATICAGGAAGIGALGAAGGILGAGAAAALGIGALIIGGIALIILAAGAAATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1069 GTGAATGCAAAAGAAAGTATAGTGAAAAGAGTGAAGGATATAGGATACALCTITTAAAGAG 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2330 GIGAALCCAAAAGAAAGLALACIGAAAAGAGIGAAGALALAGAAALAGALALAAAAGAG 2271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1189 GGAGTTCGCTTGTATTACCGAGTAATGGAATCATGCTTAAAATCAGAAGAAGAATTA 1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1170 CATAAATICITTAACTTACTAAAAGAAATIGATACCAAAAGTTGATAATGCTATG 3111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2630 AATGGGGTTCCAGGGGTTGAAAATCTTTCTAAACGATACGGAGAATTTATCTTAAAAAT 2571
                                                                                                                                                                                                                                                                                                                                                                                                289 TCAAGACTGTTGAAGAAGTATGATTGTTTGTTGTTGTTGAGGAAATTGGAAAAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 409 ITGGTGCTAAAAGTTTCTTGGATCACAIITIIAIIAGGIAAAGGGAAGIAIIACAAAIG 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 829 AAAGALOTAGATGCAAGATTATTTTTGGATGATAAAAAGTOTOTAGATOTATATA BBB
        Op Gapes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      709 AAAAAFGTTTATTGAAAAATTTTATACGTTTTATGAAFTCTTGGACTTGTAACATGT 768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    769 AATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATAGGAAGAAATTTALCTTAAAAAT 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         229 CATAAATTCTITAACITAAAAAAAAATIGAIAGCAGIA CAAAGIIGALAALGCTATG 28B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           649 AATGATACAAGAATTALIGAAGTTCTCLAAAGAACALGAATGLAATALAGALGAGGLG 708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              529 CTCTCACCTCCCATGLTGCTCAAAGAACATATAAAAGAGTGTLATAPPTALTAATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
Matches 3224, Conservative
                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ĉ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         읩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
γο
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          વેલ
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
```

1244	TTCATATGTCTT	1308
0.51.7	CAAAATTTTAGCAAAGTTCTGGAATGACATTTTTGATTTTTT	2091
1309	BCGC -171   GAGGT101 AATGGCCACATATAGCAGAAGTACATCCAGAA PCTTGATTGT 	1368
1 464	GGAACAGATIGICITECCATGGATICIGAAGGCTIAAAAAGCTIAGAAA	2.4
20.4.3	BAACAATTTGTCTTTCCCA	97
1.42.4	TACAAAG GATCGAAAG TITTATCAAAGCAGAAGCAACTIGACAAGAGAAATGATAAAA TITTITITITITITITITITITITITITITITI	1488
1484	CATLIAGAACGA GTGAACATCGAATCA TOGAATCCCTTGCATGCTCTCAGATTCACCT CTTTTTTTTTT	1548 1851
14 14 15 15 15 15 15 15 15 15 15 15 15 15 15	TTATTTGATGTTATTAAAGAAGAAAGAAGGAGGAACGAAC	1608 1791
16.09	GCTTGTPCTCTTAALCTTCCTCTCAGAATAATCACACTGCAGGGGGGTATGTATCTTTC 	1668 1731
17.40	OCLOTABABATCTCCAAAGAAAAAATTTAACTAOCCGTGTAAATTCTACTGCAAATGCA 	1728
r 2"		17
1789	CTGTTTTATAAAAAGTGTATGGGTAGCGTATCTCCGGCTAAATACACTTT 	184 155
1550	CITCTGTCTGAGCACCCAGATTAGAACATATCATCTGGAGCCTTTTCCAGCACACCCTGTTTTTCCAGCACACCCTGTTTTTTTT	1908
1303	CAGAAT	3 9
1464	FATOSCATATGCAAAGTGAACAATATAGACCTTAAATTGAAAATCATTGTAACAGCATTAC 	2028
2023	AAGGATCTICCTCATGCTGTTCAGGAGATTCAAAGGTGTTTTGATCAAAGAAGAGGGAGTTTTTTATTCATCAAAGAAGAGGAGAGAGA	2088
1310	TATGATTGTATTATAGTATTGTATAAVTGGGTCTTCATGGAGAGTGTGAAACAAATATTTTTTTTTT	2148 1251
2149 1250	H	2208
22019	-	2268
2269 1130	CTGANGA FECATATAAATTTCAGAAGGTCTGCCAACACCAACAAAAATGACTCCAAGA 	2328

2329 TCAACAATCTTACTATCAATTOOTGAATCOOGGAGTTCTGAGAAGTTOTACAAATA 2388 1070 TCAAGAATCTTAGTATCAATTGGTGAATCATTGGGGGACTTGTGAGAAGTTCCAGAAATA 1011 2449 CCTAAAACAACAAAAAACTAGGCTTTGATATTGAAGGATCAGATGAAGCAGATGGAAGT 2508 2509 AAACATCTCCCAGAGAGAGTCCAAATTTCAGCAGAAAGTGGCAGAATGACTTGTAGTCGA 2568 2629 TGASSAICTCASSACCIISGIGGACACHGIACACHCICGGAITCAHGGTCHCACACHAGAS 2689 ATGTGACTGTAFACTTTCCCAGGTTCTGTTTATGCCACATTTAATATCTTCAGCTCTT 2748 2749 ITIGIGGATATAAAATGTGTAGAATGCAATIGIIIGGGGIGAIICCIAAGGGAGIIGAAAIG 2808 2869 TICTAGOAGATIFICITIFICITIFICAAAGTAAAATTGCTGTGGTTTATGGATAGTAACAATG 2928 2929 GOOGTAGAGTGGGAGTGGTGALAAGGGGAGGGTGTGTGAGTAGTTGGGGTTGTTGTAG 2988 2989 CATATAGGTGATGTTTGCTGTTTTTTTTATTATTATATGTATATTTTTTTAATTTAAC 3048 3109 ATTCACCAAAATIAICCIGAACICTICTGCAAAAAIGGAIATTATTAGAAATIAGAAAA 3168 8289 TACTATCATACTACTGAAACAGAIIICAIACCICAGAAIGIAAAAGAACITACIGAIIAI 3348 3169 AATTACTAATTTTACACATTAGATTITTATTTTACTATTGGAATCTGATATAGTGTGTGTGT 3228 830 ACACGAATGCAAAAGCAGAAAA IGAA IGATAGCATGGATACCTCAAACAAGAAGAGAAA 777 770 IGAGGAICTCAGGACCTIGGIGGACACTGIGIACACCTCTGGATCATTGICTCTCACAG 711 710 ATGTGACTGTATAACTITCCCAGGTTCTGTTATGGCCCACATTAATATCTTCAGCTCTT 651 650 TITICHGGATATAAAATGTGCAGTTGCAATTGTTTGGGTGATTCCTAAGCCACTTGAAATG 591 530 TGTAGNAGAITGTITGCTCTCCAAAGIAAAAIIGCTGTGTTTATGGATAGIAAGAATG 471 290 AFFCACCAAAAFTATCCTGAAACTCTTGTGCAAAAATGGATATTATTAGAAAATTAGAAAAA 231 230 AAITACTAATITIACACATIAGATIITAITITACIATIGGAATCIGATATAGTGTGTGT 271 3349 TITCIICAICCAACIIAIGIIIIIAAAIGAGGALIAIIGAIAGI 3392 50 TITCTICALCCAACITATGITIIIAAATGAGGAITATTGATAGI 7 δŏ q ò ò qq 9 9 9 qq 3 QC. 2 ŝ Š ŝ ã ô 9 ŝ ò 9  $\dot{\circ}$ ò à qq

```
Ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    130 AAGGAAATGROOGAALATGRACHTIGTATGCAGCAGTTGACGAGAGGAGATGTC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  250 AAAGAAATTGATAGCAGTACCAAAGTTGATAATGCTATGTCAAGAGGTGTTGAAGAAGTAT 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  544 AAAGAAATEGAFACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTAT 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      310 GALGTALLOTTLOCAPPILICAGRAAALIGGAAAGGACATGTGAACTTATATATTGACA 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70 TTAACITGGGAGAAAGITTCATCTGTGGATGGAGTATTGGGAGGTTATATATCAAAAGAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    *64 TTAACTTGGGAGAAGTTTCATCTGTGGATGGAGTATTGGGGAGGTTATATTCAAAAGAAA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.24 ANGGAACTGTGGGGAATCTGTATCTTTATTGCAGCTAGTTGACCTAGATGAGTGTCGTTC 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      79.3%; Score 2691; DB 1; Length 2994;
                                                                                                               TILLE OF INVENTION: CHARACTERIZATION OF A NOVEL ANTI-PILORB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                 Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                           II TOWNSEND & TOWNSEND & CREW LLP IWO EMBARCADERO CENTER, 8TH FLOOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENTEZERON UNMHER: 16930-00040000S-
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCF/US92/05866 FILLING DATE: 14-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                 IMBER: US/08/204, 429
15-AUG: 1994
                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
NomPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DGS/MS-DOS
                     Sequence 2, Application 00708201329
Patent No. 5710255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         35,146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (415) 326-2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DAIE: 14-JUL: 1992
ATFORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (415) 326 2422
INPORMATION FOR SEQ ID NO: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2994 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE LYPE. DNA (CDNA)
                                                       GENERAL INFORMATION:
APPLICANT: SHEDAKE, H. M.
APPLICANT: WEN, SHU F.
TITLE OF INVENTION: CHARA
                                                                                                                                                                                                                                                                                                                                                                                             SURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 2591; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   dompte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RENEE A. FITTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DAIA:
                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                               SAN FRANCISCO
                                                                                                                                                                                                                                                                                                         COMPUTER READABLE PORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               numbers acid
                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                   CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                   U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                     94111
                                                                                                                                                                                         ADD PESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Traperlow;Y:
US OB 204 429 2
                                                                                                                                                                                                                                                                     CHUNIEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CENCLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           omery Mateh
                                     Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
```

```
1384 CTGAAAAGAGTGAAGGATATAGGATAGATGTTTAAAGAGAATTTGCCAAAOCTGGGGGA 1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1684 TGGAFICTGAATGTGTTTAAAAGOOTTTGALTTTTACAAAGTGAFOAAAGTTTT 1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1090 CTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAAAATTTGCTAAAAGCTGFGGA 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1150 CAGGGTTGTGGAAATIGGATCACAGGGAIACAAACTIGGAGTTGGCTTGTATIACCGA 1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1444 CAGGGTGTGTGTGGAAATIGGATGAACAAACTIGGAGIIGGCIIGIAIIACGA 1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1210 GTAATGGAALCCALGCLLAAALCAGAAGAACAALTALCCALLCAAAA: 111A3CAAA 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1270 CITCICAATGACAATITITCAIAIGTTIIAIIGGCGIGGGG FCIIGAGGIGIAAIG 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLITHELLIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1390 IGGATTCTGAATG1GTTTAAFTTTAAAAGGCTTTGATTTTTACAAAGTGA (CGAAAGTTTT - 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1450 ATCAANGCAGANGCAACTTGACAAGAAAATGATAAAAACATTTAGAAACGA FOTGAACAT 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1084 AATCTTTCTAAACGATACGAAGAAATTTATCTTAAAATAAAGATCTAGA FGCAAGATTA 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       610 GGTCAGAAFAGGAGTGCAGGGATAGCAAAQAACTAGAAAATGATACAAGAATTATTGAA 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              904 GGTCAGAACAGGAGTGCACGGATAGCAAAACATAGAAAATGATACAAAATTATTGAA 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         670 CTTCTCTCTAAGAACA1GAATGTAATA1AGATGTGAAAAAAA131F1ALLTCAAAAAT 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        730 ITTATACCITTTATGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGGTTGAA 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        790 AATCTTTCTAAACGATACGAGAAATTTATCTTAAAATAAAGATCTAAAAGATCTAAAAATA 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       430 ATCACATITITALIAGCIAAAGGGGAAGTALIACAAABGAAAGAAGAAGATGATGATTICA 489
                                                                                                                                                                                                                                                                                                                                                               490 FITCAGTIAA EGCTATGLG EGTTGACKATTTATTAAACTCTCACTCCAA DITGCLG 549
370 CAACCCASCASTACTATOIACIGAAATAAATICTGCATIGGTOOTAAAAATITTTTGG 429
                                                                                                                                                                                                                                                                                                                                                                                                              550 AAAGAACCATATAAAACAGCTGTTATACCCATTAATGGTTCACCCTGGAACACCCAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        844 AAAGAAGCATATAAAACAGCTGTTATACCCATTAATGGTTCACCTGCGAACACCAGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       850 TTTTGGGGTGALAAAAGGGTGTGAGAGTGALGALAGAGAGHTLGAAAGAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ž
                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ें
```

```
οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1940 AGAGACAGCATTTGGACCAAATTATGATGTGCTTCCATGTATGGCATATGCAAAGTGAAG 1989,
1244 ATGAAAGGAAAGGAACIIGACAASAGAAATGAIHHHHHHHHHHHHHHHHHHHHHHHHHHH
                                                                                                                                                                                1515 SSAA1PATGGAATGCCTTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTAAAGGAA 1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21.4 GESCHASCHAFFERHEITHEFFERMANDER GRANGER FERGER FOR STORE FOR S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2284 AATATAGACCITAAATICAAAAICATIGIAACAGCATACAAGGAICTICITCITCATGTT 2343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1804 0GAATCAIGGAATCCCIIGCAIGGCICICAAGAITCACCIIIAITIGAICIIAITAAAGAA 1863
                                                                                                                                                                                                                                                                                                                                                                                                           1570 TCAAAGGAGGAGAAGGACAAATGAFGAGTIGAACTGATGTATGTATGTAATGTTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16 de CTCCAGAATAATCACACTGCAGACAGAIAIGTATCTTTCTCCTGTGTAGATCTCCAAAAAA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1924 FICCASANTAATOACACTOOAGAATATGTATCTTTOTOOTGTAAAAATOTOOAAAAA 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16.90 AAAGGTTGAAGTAFGGGTGTGTAATTTGTACTGCAAATGCAGAGGAAGCAAGCTGAGGC 1749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1755 TISCAGAGGCAGAGGCAFFGAAATCTAGCTCTTTCACTGTTTTATAAAAAGTGTAT 1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1810 COGCTAGCCTATCTCCGGCTAAATACACTTTGTGAACGCCTTCTGTCTCAGAA 1869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1990 AATATAGACCITAAATICAAAATCATIGIAACAGCATAGAAGGATCTTCCTCATGCTGTT 2049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2-444 CAGGAGACATTCAAAACGTGTTTTGATCAAAGAAGAGAGTATGATGATTGTATTATTATAGTATTC 2403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2110 TATAACTCGGTCTTCATGCAGAGACTGAAAACAAATTTTGCAGTATGCTTCCACCAGG 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2484 OCCUTANCITGIOANCAATANCIGAAATICCIGGAAANNIIAAAAIIGGIAAIIGA 2523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25.4 COCITA GASATTO CIGGA GASAACA PATATATITO RECOCCIGAAGA GOATATAAAATT 2583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2290 TCAGAAGGTOTGCCAACACACAAAAATGAATTGAAGATCAAGATCTTAGTATCAATT 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2584 ICAGAAGGIGIGGAACAGAGAAAAAIGACIICCAAGAICAITAGIIAICAAIII 2643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2350 00100AATOATTOOGGAOTTOTGAGAAATTOOGAAAATAAATGAGATGGTAFGTAAGAGO 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2644 GGIGAATCATTCGGGAATTCTGAGAAGTTCCAAAAATAAATGAGATGGTATGIAACAGC 2703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2470 OGCITICATATICAAGGAFCAGATGAAGCAGGAAGTAAAAGATGTGGGGAGAGAGTGG 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25.89 AAAITTCAGCAGAAAATGGGCAGAAATGACTTCTACTCGAAACAGGAATGCAAAAAAGCAGAAA 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2050 CAGGAGACAT PPAAAPGTGTFTTGATFAAAGAAGGAGTATGTATTATAGTATTG 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             217% CCCCCTACCITGICACCAATACCICACTACTCCTCGAAAAAATTAAAAATTICATAGTICA 2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.2.40 PPPLIAPEGATIPPTEGAGGAAGATCTATATTTCACCCFFCAAGAGAGATGTAAAAATT 2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;;;
;;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ÷
```

```
2590 ATGAATGATAGCATGCATACCTCAAACAAGGAAGAGAATGAGGATCTAAGGACTTGGI 2649
                                                                           1914 AAATIITASIABAAA IIBSIKSAAALBA IITOLA DORASAABAALS AAAAL LEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70 TTAACTTGGGAGAAAGITTCAICTGIGGAIGGAGTAITGGGGAGGTTAIAITCAAAAAAA 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 130 AAGGAACTGTGGGGAATCTGTATTATTGCAGAATTGACCTAGATGAGATGTATTTC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           364 TTPARCTTGGGAGAAAGTTTCATCTGGATGGAGGTATTGGGAGGTTATATTCAAAAGAAA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Saps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 GATTTTACTGCATTAFGTCAGAAATTAAAGATACCAGAFGATGTCAGAGAGAGAGAGATTGG 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   =
                                                                                                                        2650 GGAGACTGTGTACACTCTGGALTCATTGTCTCTCACAGATGTGACTGTAT 2700
                                                                                                                                           79.3%; Score 2691; DB 2; Length 2994; 100.0%; Fred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                Retinoblastoma Gene - Cancer Suppressor and Regulator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                              E: Campbell and Flores 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Pred. w. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 07/951,947
FILING DATE: 28 SEP 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TS 108 1482, 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PC-DOS/MS-DOS
                                                                                                                                                                                                                                                               Sequence 4, Application US/08482627
Patent No. 5998134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Campbell, Cathryn A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILLING DATE: 28 SEP 1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Floppy disk
                                                                                                                                                                                                                                                                                                                      APPLICANT: Loc, Wen-Hwa APPLICANT: Loc, Eva Y-H.P TITLE OF INVENTION: Retino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2994 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA: US. APPLICATION NUMBER: US.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 100.(
Matches 2691; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SECUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  139..2924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         California
                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      San Diego
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 07 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM INTE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1FI PDHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE:
                                                                                                                                                                                                                                          JS-08-482-627-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-482-627-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CEMCTH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
```

7.0	190	I GADO LACAGAAAAAA ABAAA LOAGTOTOCA LAAAT LOTTI LAACITLACI.	244
1.4.	484	A'TITIA'TGAG'TAGAGAAAAA'ATGAAGTGAGTGTGGAAAATTGTTTAAGTTAGTT	54.4
5	7,00	AAAGAAA LIGALAGGAGLAGGAAAGLIGALAA LIGALAA GGTA IGAAGAAGACTIGTILIGALAGAAGAAGTAT	309
â	544	AAAGAATTGATACCAGTACCAGTTGATAATGCTATGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG	603
ćλ	<u>=</u>	GATGIATTGITGGACTCTCAGGAAATGGAAAGGACATGTGAACTTATATATTTGACA	698
4	6.04	GATGTTTGTTTGTGTGTTTGTGGAAATTGGAAAGGACTTGTTTTTTTGTT	664
70.0	470	420 - AANTOAGTAGTAGTATAGTGAATAAATTGTGATTGGTGTAAAAGTTTGTTG	429
17.	<del>1</del>	CARCCAGCAGTECATATETACTAAATAAATTETGCATTGGTGAAAAATTETTGG	7.23
6.7	<b>4</b>	ATPAPATTTTATTAGTAAAGGGGAAGTATTACAAATGGAAGATGATGATGATTTGATTTTGA	484
<u>-</u>	124	ATMACATTITIATTAGMTAAAGGGGAAGTATTAMAAATGGAAGATGTGTGGTGGTTTGA	781
20	4.30	FIFCACTTAATGCTATGTGTGTGTGACTATTTATTAAAGTGTGACGTGCCATGTTGCTC	549
÷	784	TITCAGI IAATOMATGI GIGGI IGAGIATTI IATTAAAGI COGAGGGGGATGITGGTG	84 1
7.7	(1,1,1)	AAAGAAGCATATAAAAGAGCTGTTATAGCGTTTAATGGTTGAGCTGGAAGAGGGGGA	609
15.6	84 4	AAAGAM CATAIAAAAACAGTSITAIACCGAITAAIGASTICAGCTGGAACACCGGGGGG	503
	6.10	GGTCAGAACAGGACTGCATGGATAGCAAAAGAACTTAGAAAATGATAGAGAATTATTTGAA	699
4	\$06	OBLICADARGAGAGAGGAGGAGGAGAAGAACAAATAGAAATGATAGAAGAATTATTGAA	8963
ζ.	6.70	CITCTCTGTAAAGAACATGAATGTAATATAGAGGGGGAAAAAATGTTTATTTCAAAAAT	6.7 /
<u>.</u>	496	CTECTO BANGAACATCA BATTATA BATTATA BATTATA BATTA BAAAAAA BAAAAAAAA	1023
25	7.40	TITATAPOLITIATOAATPOTOTTOTAGACTPOTAATGGACTFCCAGAGTTGAA	784
÷	1024		1083
5	7.90	AATCHHOTAAACGAAGAAAHHAHCHIAAAAHAAAGAAGTAGGAAGATTA	844
<del>2</del>	1084	AATOTTICTAAACGATACGAAGAATTTAAAAATAAAGGAAGGAAGGTAGAAGATG	1143
20	85.0	TITITIGGATCATGATAAAACTCITCAGACTGATTCITATAGACAGTTTTGAAACACAGAGA	606
÷	1114	TITTIONATCATOATAAAAACLITTAAGAACTOTTTAAAGACACTITTGAAACAGAGAACA	1203
25	9.10	ACACTACTACADA DA DA CONTRA ESTA DE CONTRA EL C	595
Ŀt,	1204	ACACCACGAAAAAATTAACCTTGATGAAGAGGGGGGAATTTCCTCCCACACTCCACTT	1263
	970	AGGATTTTTAAAGACACTATCGAACAAAGAAGATTATTAAATTGAGGAAGTGATCAA	1029
=	1264	AGGACTG THE CONTROLL OF THE CONTROLL OF THE CONTROLL OF THE CONTROL OF THE CONTRO	1323
õ	1040	CTTCAGAAAATCTGATTTCCTATTTTAACAACTGCACGGAATCCCAAAAGAAAG	1089
=	1 124	OTTIVATABAAATUUGITTIVATATTAACAATIGCACAGIGAATUUTIITITTI	1383
60	1090	CHGAAAAGAGTGAAGAT	1149
1515	1 484	CTGAAAGAGTGAAGGAT	1443
65	1150	TSU CARDIN GREEGERAAA FODA (CARACADAAACH GGADEL CONTRESATACOGA 120	1209
Ē	444	PAGGGFFGFGFGGAAATT	1503
50	1210		-
<del>2</del>	1504	TTAATGGAATGGALGCTT	1564

```
2105
                                                                                                                                                                                                         1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2584 TCAGAAGGTCTGCCAACACCAACAAAAATGACTCCAAGATCAAGATCTTAGTATCAATT 2643
                                                                   1330 GCCACATATAGCAGAAGTACATOTCAGAATCTTGATTGTGGAAAGATTLGTCTTTGCA 1389
                                                                                   1990 TGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTT 1449
                                                                                                                                                                                                                                                                                          1630 CTCCAGAATAATCACACACACAGAGATATGTTTTTTTCTTGTAAAATCTCCAAAAAA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1810 CGGCTAGCCTATCTCCGCTAAATACACTTTGTGAACGCTTCTGTGTCTCAGACACAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1870 TINGAAGATAICATCIGGACCCITIICCAGGACACTGAGAAIGAGITAIGAACTCATG 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2116 TATAACTCAATCITCALGCAGAGIGAAAA AAATAITIIGCAGIAGG 110 ACCAGG 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2404 IATAAACTGGGTCTTCATGCAGAGACTGAAAACAAATATTTGCAGTAHHTH HEHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2170 GCCCTACCTTGTCACCATACCTCACATTCCTCGAAGCCTTACAATTTCTTAGTTCA 2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2290 TCAGAAGGTCTGCCAACAACAAAAATGACTCCAAGATCAAAAATCTTAGTATCAATT 2449
                                1930 AGAGACAGCATTTGGACCAAATTATGATGTTCCATGTATGGCATATGGCAAAGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2230 CCCTTACGGATTCCTGGAGGGAACATCTATATTTCACCCTGAAGAGCCATATATAAAATT 2289
1684 TGGATTCTGAATGTGCTTAATTTAAAAGCTTTGATTTTTACAAASTGAAGGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCAAAGCAGAAGCTGATAAGAGAAATGATAAAAACTTTAGAAGGATGTGAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCCAGACCCAGAGCCATTGAAATCTACCTCTCTTTCACTGTTTTATAAAAAATGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2164 TTAGAACALATCATCLOGACCCTTTTOCAGGACACCTGCAGAALGAGTATGAACTGATG
                                                                                                                                                                                                                                        1744 ATCAAAGCAGAAGCAACTTGACAAGAGAAAATGALAAAACA111AGAACGA1G1GAACAT
                                                                                                                                                                                                                                                                        1510 CGAATCATGGAATCCCTTGCATGGCTCTCACATTCACTTTATTTGAFCTTAATTAAACAA
                                                                                                                                                                                                                                                                                                                                        1570 TCAAAGGACCGAGAAGACCAACTGATCACTTGAATCLGCTTGTC CTTAATCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1990 AATATAGACCITAAATTCAAAATCATTGTAACAACAATAAAAAAD TOOLOAFBCEGTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2050 CAGGAGACATTCAAACGTGTTTTGATCAAAGAAGGAGTATGATGATGTATGATATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2044 ITGCAGAGGGAAAGGGATTGAAATGTAGGTGTTTTGAGTGTTTTATAAAAAGGGTATT
                1450
                                                                                                                                      ..
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                 g
                                                                   ŝ
                                                                                                                                                                      G
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                    윤
                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                            ć
                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

2350 GGTGAATCATTGGGGACTTCTGAGAAGLICCAGAAALAAALAAALGGTATGTAAAGGT 2409

Š

```
2419 GANGGIGIGGIGAAAAAAAGIGGIGAAGGAAGGAAGCCIGGIAAAAGAGAGIA 2469
                                                                                                                                                                                                                                                                                            2704 NACHITGTTGTTPAAAGAAGTGTTGAAGGAAGGAAGGCTGCTAAAGGGGAGTGAAAAAGTA 2763
                                                                                                                           2764 GGCTTTGATATTGAAGGAFCAGATGAAGCAGGAAGTAAACATGCCCAGGAGAGTCC 2823
                                                                                                                                                                                                    2530 AAATTICAGCAGAAACTGGCAGAAATGACTFFCTACTGGAACACGAATGGAAAAGGAGAAA 2589
                                                                                                                                                                                                                       245. GGACACTG1G1ACACCTC1GGATTCATTGTCTCTCACACACATGTGACTGTAT 2700
                                                                                                                                                                                                                                                                                                                                                                    DB 3; Length 2994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Tissue Specific Expression of TITLE OF INVENTION: Retinoblastoma Protein NUMBER OF SEQUENCES: 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SYSTEM PC EDS/MS DOS
Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMNISEND and TOWNSEND and CREW LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Iwo Embarcadero Center, 8th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 016930 001020 BIRCOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 2691;
Prod No 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER - HEZORZBOT OGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/751,517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3. Application US/ORROIN92
Patent No. 6074850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANI: Antelman, Douglas
APPLICANI: Gregory, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PERATING SYSTEM PC COMPATIBLE PERATING SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    45,136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            79.3%; S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wils, Kenneth N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14 - FEB - 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RNEY/AGENI INFORMALION:
ME: Fitts, Renee A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15 - NOV - 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        415-576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGIH: 2994 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SECUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         703-576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEC ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KRRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   michele aeid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Openy Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILLING DATE: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MPDITIM LYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>۲</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ELECTED NE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAPUTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repollody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SHITWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              US OB 801:092 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NONTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             r.i.F.F.AX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIREEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                           Ξ
                                                                                                                               Ś
                                                                                                                                                             ŝ
                                                                                                                                                                                                    Ś
```

ċ

```
HITTHITHE (THEFTELLE) THE STANDARD STAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1084 AATCTTTCIAAAGGATACGAAGAAATTTATCTTAAAAATAAAAGATCTAGGAAGATTA 114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1204 ACANCACAAAAAAGIAACCTIGAIGAAGAIGAAIGIAALTCCNOCACACACACIATI 126+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        970 AGGAÇTGTTATGAAGAGTATGGAAGAALTAATGATGATTTTAAATTGAGGAAGTGATGAA 102%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1264 AGGACTGTTATGAACACTATCCAACAATTAATGATGATTTAAATTCAGCAAGTGATCAA 1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1030 CCTTCAGAAAATCTGATTTCCTATTTTAACAACIGCACAGTGAATCCAAAAAAAAGTATA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1024 TITATACCTITTALGAALICICITGGACTIGFAACAICLAAIGGACTICCAGAGGITGAA 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190 ACTITIACIGAGCIACAGAAAAACAIAGAAAIGAGIGIGCAIAAAAIICITIAACIIAACA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                430 ATCACATTTT TATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGATCTGGTGATTLT 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HITTELLE HIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        610 GGTCAGAACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATAGAAGAATTATTGAA 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 904 GETCAGAACAGGAGTECACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATIGAA 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           670 GTTCTCTGTAAAGAACAIGAATGTAATATAGATGAGGTGAAAAAATGTTTTTGAAAAAT 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       730 TITATACCITITATSAATICICTIGGACTICIAACATCTAATGGACTICCAGAGGITGAAA 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   790 ANICTITCTAAACGATACGAAGAAATTTATCTTAAAAATAAAGATGTAGATGCAAGATTA 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               850 ITITIGGATCATGATAAAACTCTICAGACTGATTCTATAGACAGTTTTGAAACACAGAGA 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    910 ACACCACGAAAAAATTAACTTGATGAAGAGGGGGAATGTAATTCCTCCACACACTCCAGTT 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70 TTAACTTGGGGAGAAAGTTTCATCTGTGGATGGAGTTATTGGGAGGTTATTGAAAAAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              130 AAGGAATEGGGGAAATETGTTTATGTITALIGGAGGAGITGACCIAGALGAGAIGLCGLLC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       484 ACTITITACTGAGGTAGGAAAAAAGATAGAAATGAGTGTGCCATAAATTGTTTAAGTTAGTA 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   544 AAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTAGGAGGCTGTGAAGAAGTAT 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     310 GATGLAFIGITIGCACICITCAGCAAATIGGAAAGGACATGTGAACTTATATATTIGACA 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 370 CAACCCAGCAGTECGATATCTACTGAAATAAATICTGCAATIGGTGCTAAAAGTTTCTTGG 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                490 TITCASTIAAIGCIAIGFGFGCTGACTAITIAIIAAACFCICAGCTCCCAIGFFCCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              724 ATCACATTTTTATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGATCTGGTGTTTTCA 783
                 O, Cabs
                                                                                                                                                                          250 AAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTAAGAGTGTTGTTGAAGAGTAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0, indels
        0, Mishatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 2691; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
```

```
1990 PTGAAAAGASTGAAGGAFATAGGATGTTTAAAGAAAATTTGGTAAAGGCTGTGGA 1149
                                     1384 PLOAAAAGAGTOAAGGATATAGATACATCTTTAAAGAGAAGTTGGTAAAGCTGTGGA 1443
                                                                                                 1.330 GPCACATAIAGPAGAAGFACATCTCAGAATCTTGATTCTGGAACAGAGTTTGTCTTTGCCA 1389
                                                                                                                                                                                                                                                                                                                                                                                             1.990 TGGATTCTGAATGTGCTTAATTTGAAAGGCTTTGATTTTTACAAAGTGATCGAAAGTTTT T449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1450 APCAAAGCAGAACCAACTFGACAAGAAATGATAAAACATTTAGAACGATGTGAACAT 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1510 COANTCATGGAATGCCTTGCATGGCTCTCAGATTCACCTTATTTGATCTTATTAAACAA 1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1570 FCAAAGGACGGAGAAGGACGAAFTGATCAACFTTGAAFTFTGTTGTGTCTTTAATCTTTGTF 1629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1864 TOAAAGACOSASAAGGACOAAGTGATGACGTTGAATGTGCTTGTTGTTAATGTTGCT 1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1630 CTCCAGAATAATCACACTGCAGAATATGTATCTTTTCTCTGTAAGATCTCCAAAGAA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1924 CHONAGAATAATOAGAGTONAGGAGATATGTTTGTGCTGTAAGATGTGTGTAAGAAA 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1750 TIPCAGAPCAAAAGCALIGAAAIPIACCICICITICACTGTITTAIAAAAAAGIGTAT 1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2044 TTGGASACCCAGAAACCAFTGAAATCTACCTCTCTTTCACTGTTTTATAAAAAAGTGTAT 2103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1810 COGCIAGOTATOLOGOSTAAATACACITIGIGAACGCCITCIGIGAGCCCAGAA 1869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1870 TTAGAACATATCATCTGGACCCTTTTCCAGCACCCGGGAGAATGAGTATGAACTCATG 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2164 TINGAANATATOATOTOAGGCCTTTTCCAGGCGTGCGAGGAGTATGAGGTGTGAGG 2223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2224 AGAGACAMMITTGGACCAAATTATGATGIGITGCATGTAGGAIAIGCAAAGIGAAG 2283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1990 AATATAGACCTTAAATTGAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCTGTT 2049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2050 (NGGAGACATTOAAAGGTGTTTTGATCAAAGAAGAGGATATGATGATTGTATTATATTTT 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2110 TATAACHOOGTOTTOATOCAAAACTGAAAAAAATAITTGGAGTATGGTIGGAGGAGG 2169
                                                                                                                                                     1210 GIAALGAARCALGALIAAARGAAAAAAAAAAAA 1259
                                                                                                                                                                                              1504 GTAATGGAAFGGALGALGAGAAAGAAGAATTATGGATTGAATTTFAGGAA 1563
                                                                                                                                                                                                                                    1624 GPGACATATAGGAGAGAGTAGATGTCAGAATGTTGATTGTGGAAGAGATTTGTCTTTGCCA 1683
                                                                                                                                                                                                                                                                                                                                                                                                                                     1584 TGGATTCTGAATGTGGTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTT 1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1150 CABBITTGTSTCGAAATTGGATCACAGGATAGAAACTTGGAGTTGCCTTGTATTACCGA
                                                                                                                                                                                                                                                                                                                                                                                                              \frac{5}{2}
                                                                                                                                                                                          £
                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                       Ξ
                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                =
```

```
2464 CONCELECTION CANDAIA CELCACATIONI CORACIONA PARA CARRAGIO CARRATION A 25.23
                                                                                    2230 CCCPF ACCCATFCCFCGACGGAACATCTATATFTCACCCTCGAAGACFCCATATAAAAFT 2289
                                                                                                             2524 CCCTTACGGATICCTGGAGGGAACATCTATATTTCACCGGAAGAGGCCATATAAAATT 2583
                                                                                                                                                                        2290 TCAGAAGGTGTGCCAACACCAACAAAAATGACTCCAAAATGAAATAAAAATTTAGTATGAATT 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2530 AAATTTGAGGAGAAACTGBGAAATGACTTCTACTCGAACAAGAGGAGGAAAAAGAAAAA 2589
                                                                                                                                                                                                                   2170 COCCCENCITGECACANIACCICA ALICETOANGO CLIA ANTITECTACETON
                                                                                                                                                                                                                                                                                                                                              2410 GACCGIGIGETCAAAAGAAGIGEIGAAGAAAAAGCETIPETAAAAAAAAATA
                                                                                                                                                                                                                                                                                                       2644 GGTGAATCATTCGGGGACTTCTGAGAAGTTCCAQAAATAAATCAGATGCTATGTAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                    2764 CCCTT1GALATTGAAGGATCAGAGAAGCAGAATTAAACAAATAAACAAAAAAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2590 ATGAATGATAGCATGGATACTTCAAACAAGGAAGAGAALGAAGATGAGGATGATGGTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2884 ATGAATGATAGCAFGGATACUTCAAACAAGGAAGAAATGAGGATCTCAGGACUTTGGT
                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: TOWNSEND and TOWNSEND and CREW LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1. CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wils, Kenneth N. TITLE OF INVENTION: Tissue Specific Expression of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: Two Embarcadero Center, 8th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 016930-001020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Retinoblastoma Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/09/415,113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 08/801,092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IHM PC compatible OPERATING SYSTEM: PC DOS/MS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 35,136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gregory, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-May - 1-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3, Application US/09315113
Patent No. 6379927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Antelman, Douglas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Fitts, Remor A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VSI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-315-113-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL
                                           ó
                                                                                                                             a
                                                                                                                                                                        ć
                                                                                                                                                                                                                 ≘
                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                       ç
                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
```

0

Gaps

```
944 GITCICIGIAAAGAACALGAAIGIAAIAIAAGAIGAGGIGAAAAAIGIIIAIIITGAAAAAT 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20 TIAACITTGGAGAAAAGTTTCATCTGGATGGAGTATTGGGAGGTTATATTTCAAAAAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.4- TITATAPPTTETA FGAATTETTGGACTTGTAACATCTAA IGGACTTCCAGAGGTTGAA 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.40 AATCTITCTAAAAGATAACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTA 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             850 TITITGGATCATGATAAAACTCTTCAGATTCTATAGACAGTTTTGAAAACACAGAG 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.4 SATITIACIGCATIATGTCAGAATTAAAGATACCAGAICAIGICAGAGAGAGAGATIGG 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4-4 JIAAFILIGGGAGAAAGIILIGAICIGIGGAIGGAGTATIGGGAGGIITALATICAAAAGAAA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 ANGGAACTGTGGGGAATCTGTATCTTTATTGCAGGTGACCTAGATGAGATGTCGTTC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   484 ACITITACIGAGCIACASAAAAACAFAGAAICAGGIGCCAFAAATICTITAACTIACIA 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                250 AAAGAAATIGAIACCAGIACCAAAGTTGAIAATGCIAIGICAAGACTGTLGAAGAAGTAT 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           310 GATGTAFTGTTTGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTTATATATTTGACA 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5/4 GAIGIATIGITIGCACICTICAGCAAATIGGAAAGGACAIGIGAACITATATITGACA 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F64 SAASSAGGAGIICGAIAIGIAGIGAAAIAGIGAAAIGIGAATIGIGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 30 ATCACATITITATTAGCTAAAGGGGAAAGTATTACAAATGGAAGATGATGTGGTGATTTCA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2.1 ALCACATITITALIAGETAAAGGGGAAGTATTACAAATGGAAGGTGATGTGGTGATTTCA 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.6) ITTCACTIAATGCTAIGTGTCCTTGACTATTTATTAAAGTCTCACCTCCCATGTTGCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       550 AAAGAACATATAAAAACAGCTGTTAFAFGCCATTTAATGGTTCACCTCGAACACCCAGGCGA 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     610 GGTCAGAACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAA 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               304 GGTCAGAACAGGAGTGCACGGATAGCAAACAACTAGAAATGATACAAGAATTATTGAA 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  627 STICTCICITATABANGAACAIGAAIGIAAIAIAAGAIGAGGIGAAAAAAIGIIIAIIITCAAAAAI 729
                                                                                                                                                                                                                                                                                                                                                                                                                                     19 GALITIACTGCAFTATGTCAGAAATTAAAGAFACCAGAFCATGTCAGAGAGAGCTTGG 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1901 ACTITI ACTICACCI ACAGAAAAACATAGAAATCAGTIGTCCATAAATTCTTTAACTTACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        370 CAACCCAGCAGTTCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      79.3%; Score 2691; DB 4; Length 2994; 100 09; Prod No 0; O; Indels 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                              SPONTENCE DESCRIPTION: SPO ID NO: 3:
                                                                                 CENGTH: 2994 base pairs (YPE: nucleic acid STRANDEDNESS: single
IELEFAX: 703-576-0300
                        INFORMATION FOR SEQ ID NOT 3: SEQUENCE CHARACHERISTICS:
                                                                                                                                                                     TOPOLOGY: linear MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                            Matches 2691; Conservative
                                                                                                                                                                                                                                                                                                                                              Lecal Similarity
                                                                                                                                                                                                                                                         08-09-415-113-3
                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
```

```
1204 ACACCACGAAAAAGTAACCTTGATGAAGGTGAATGTAATTCCTCCACACACTCCAGT 1,24.3
                                                                                                                                                                                                                                                                                                                                                                                                        1336 GCCACATATAGCAGAAGTACATCICAGAATCIIGALCIGGAACAGATTGTCTTTCCCA 1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1144 ITITIGGALCATGATAAAACICIICAGACIGAIICIATAGACAGIIITGAAACACAGAGA 1203
                                                                                                                             970 AGGACTGTTATGAACACTATCCAACAATTAATGATGATTTTAAATTCAGGAAGTGATGAA 1029
                                                                                                                                                                                                                1030 CCTTCAGAAAATCTGATTTTCCTATTTTAACAACTGCACAGTGAATCCAAAAGAAGTALA 1089
                                                                                                                                                                                                                                                         1090 CTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGGTAAAGCTGTGGGA 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1210 GTAATGGAATGCALGCTTAAATCAGAAGAAGGATTATCCATTCAAAALITLAGGAAA 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1270 CHTCTGAAHGACAACATITTTCATAIGICHTIAIIGGGGTGGGGTCHTGAAGTHGHAAIG 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1624 GOGAGATATAGGAGAAGTAGATGTGAGAATGTIGATTGTGGAAGGATTTGTGTTTTGTGA 1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1390 "GGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTACAAAGTGALGCAAACLTLL 1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1684 TGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATGGAAAGTTTT 1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1450 ATCAAAGCAGAAAGCAACTTGACAAGAGAAATGATAAAACATTTAGAACGATGAGAGAT 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1510 CGAAICATGGAAICCCTIGCAIGGCICTCAGAITCACCTITATIIGAICITAIIAAAAAA 1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1570 TCAAAGGACCGAGAAGGACCAACTGATCACCTTGAATCTGCTTGTCCTCTTAATCTTCTT 1629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1864 TCAAAGGACCGAGAAGGACCAACTGATGACGTTGAATGTGCTTGTGCGTGTTAATGTTGGT 1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1630 CTCCAGAATAATCACACTGCAGCAGATAIGIAICTTTCTCCTGTAAGATAACAAA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1750 PTCCAGACCAGAACCCATIGAAATCTACCICIPTIICACTGTITTAIAAAAAAJIJIAI 1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1870 TIAGAACAIAICAICIGGACCCIIIICCAGCACACACCIGCAGAAIGAGIAIGAACICAIS 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2164 THAGAACATATCATCTGGACCCTTTTCCAGCACCCTGCAGAATGAGTATGAACTCATG 2223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1930 AGAGAGGGATTTGGAGGAATTATGATGTTGGTTGGATGTATGGGATATGGAAGTGAAG
                                          910 ACACCACGAAAAAGTAACCTTGATGAAGGTGAATGTAATTTCCTCCACACACTCAA11 969
                                                                                                                                                    1384 CIGAAAAGAGTGAAGGATALAGGATACATCITTAAAGAGAAAFITGCIAAAAGTGGGA
                                                                                                                                                                                                                                                                                                                                                                                    1150 CAGGGTTGTGGAAATTGGATCACAGCGAIACAAACTIGGAGTICGGTTGIAITACCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
•
                                                                                                                                                                                                                                                         ad
                                          δλ
                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   č
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

REFERENCE/DOCKET NUMBER: FP-UC 1117 TELLECOMMUNICATION INFORMATION:

TELEPAX: (619) 545-9001
TELEPAX: (619) 585-8949
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:

2994 base pairs

LENGTH

TYPE:

STRANDEDNESS: single

TOPOLOGY: linear

FEATURE:

nucleic acid

139..2924

; NAME/KEY; ; LOCATION; PCT-US94-10357-1

CDS

31,815

Campbell, Cathryn A.

REGISTRATION NUMBER:

ATTORNEY/AGENT INFORMATION:

APPLICATION NUMBER: US 08/121,108 FILING DATE: 13 SEP-1993

PRIOR APPLICATION DATA:

FILING DATE: 1 CLASSIFICATION:

13-SEP 1994

```
2290 FORGABGUINGCAACAACAAAAAAUGALICAAGAAFGITAAGAAFTI 2349.
                        2884 ATGAATGATAGGATAGGATAGGTCAAAGAAGAAAATGAAGATGTGAGGAGGTGTGGT 2943
                                                                                                                                                                                                                                                                                                                                  25.24 CCCTTACGGATICCTGGASGAAGAATGIAIHHHHHHHHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2584 FOAGAAGGEOTGCCAACAACAAAAAATGACTCCAAGAAGAAGAATGTAGTATCAATT 2643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2644 OBEGAALMA HOOGGACH EDGAAAGH I GMAAAAAAAAAA FAAA FOOLAHGIYAAGAGG 2703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2530 AAATITSAGGAGAAASTSGGAAAASSACIIGIAGIGGAAGAGGAATGGAAAAGGAAAA 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2590 ATGAATGATAGCATAGCTCAAACAAAGAAGAAATGAAGAATGTCAGAGCTTGGT 2649
1990 AAFAFAGACTTAAATTCAAAATCATTGTAACAGATACAAGGATCTTCCTCATGCTGTT 2049
                                                                                                 2050 PARGAGACATTGAAACSTGTTTGATCAAAGAAGGGGGGGTTGGATGTATATATATTGT 2109
                                                                                                                                               2444 CASTAGACATTCAAACGTGTTTTGATCAAAGAAGAAGAGTATTAATTGATTATAATTC 2403
                                                                                                                                                                                                   2110 TATAACTOGGTOTTOAGGGGAGAAAAAAAAATATTTGGGAGTATGCTTCCACCAGG 2169
                                                                                                                                                                                                                                                   2404 TATAACTCGITCTTCATGCAGAGTGAAAACAAATAITHGGAGIALGCITCCACCAGG 2463
                                                                                                                                                                                                                                                                                                    2170 CCCCCTACCTTCTCACCAATACCTCACATTCCTCGAAACCTTACAAGTTCCTAGTTCA 2229
                                                                                                                                                                                                                                                                                                                                                                                                           2230 CCCTTACGGATTCCTGGAGGGAACATCTATATTTCACCCCTGAAGAGTCCATATAAAATT 2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Z (50) OSTGANTONITOGGGACITOTGAGANGTICONGANANIANAIGAGATGGIATGIANGANAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2410 GANYGEGECETAAAAAAAAGEGEGAAAGAAAGAAACAACCETAAAACACIGAAAAAAAATA 2469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2470 ONTITIGATALIGAAGSALCAGATGAAGCAGALGGAAGTAAACATCTCCCAGGAGAGLOC 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2764 CGCTTTGATATTGAAGGATCAGAAGCAGAAGGAAGTAAAGATCTCCCAGGAGAGGTCC 2823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2650 03ACACHCHCHACACHCHCCAHCACHCHCHCHCACACAIGHCACACHCHAL 2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2944 GGAYACTGTGTGTGTGGATTCATTGTCTCTCACACAGTGACTGTAT 2994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1111E OF INVENTION: Therapeutic Use of the Retinoblastoma 1111E OF INVENTION: Susceptibility Gene Product
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \Delta PPLICANT: The Reqents of the University of California \Delta PPLICANT: and Canji, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4470 La Jolla Village Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TURKENI APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/10357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: THM PC Compatible OPERALING SYSTEM. PC FASZMS FAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application PC/10S9410357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Campbell and Flores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               San Diego
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.SA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W. F. IWAKE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCT 113394 101357 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                     ã
                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
```

```
844 AAAGAACCATATAAAACAGTGTTATACCTALTAATGGTTCACCTGGAACACCAGAGGA 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   610 GGTCAGAACAGGAGTGCACGGATAGCAAACAACTAGAAAATGATGATGATTATTGAA 669
                                                                                                                                                                                    484 ACTITIACIGAGCIACAGAAAAAAATAAGAAATCAGIGCATAAATICTITAACITACIA 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 604 GATGTATIGTTTGCACTCTTCAGCAAATTGGAAAGGACATGTCAACTTATATTTGACA 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        664 CAACCCAGCAGTTCGATATCTACTGAAATTAAATTCGCATTGGTGGTAAAAGTTTCTTGG 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  430 ATCACATITITATIAGCIAAAGGGGAAGIATIACAAAIGGAAGAIGAICTGGIGAITTCA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         724 ATCACATTTTTTATTAGCTAAAGGGGAAGTTACAAATGGAAGATGALCTGGTGATTTGA 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   550 AAAGAAGCATAFAAAACAGCIGTTATACCCATTAATGGTTCACCCCACACACACACAGA 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    670 GTFCFCFCFGFAAAGAACA ISAA IGTAA IATAA GA IGAAAAAA AATGTTTATTTCAAAAA 7.29
                                                                                                        70 TIAACITGGGAGAAAGITTCAICTGTGGATGGAGTATTGGGAGGTTATATTGAAAAAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               370 CAACCCAGCAGTICGATALCTACTCAAATAAATICTCCATTGCTGCTGAAAACTTTCTTGC 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  490 TTTCAGTTAATGCTAIGTGTCGTTGACTATTTTATTAAACTCTCAGCTCCCATGTTGCTC 549
                                                                                                                                                                                                                                                 130 AAGGAACTGTGGGGAATCTGTATTTTTTGCAGCAGTTGACCTAGATGAGATGTCGTTC 189
                                                                                250 AAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGAGTGTTGAAGAAGTAT
                                                                                                                                                                                                                                                                                                                                  190 ACTITITACTGAGCTACAGAAAACATAGAAATGAGTGTGCGATAAATTCTTTAACTTACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 79.3%; Score 2689.4; DB 5, Length 2994; Best Local Similarity 100.0%; Pred. No. 0;
                                           1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                           Matches 2690; Conservative
  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              γο
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                         n
D
                                                                                                                                                                   ò
                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                      â
                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                     qn
                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>q</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
```

1023 789 1083 849 11143 1203 1263	132 138 138 1144 120 120 126 126	0 0 0 0 0 0 0 0	18 18 19 19 19 19 19 19 19 19 19 19 19 19 19
*** SITCL************************************	7.0 AGGACTGTTATGAACACTATCCAACAATTAATGA 111111111111111111111111111111	7.0. CTICLUAALGACAACALITTICALALGICTTTAFTGGGGTGCGCTCTTGAGGTT 4. CLILLILLILLILLILLILLILLILLILLILLILLILLIL	CGAACCAGAACCAGAACCAGATTCACCTTTCACTGTTTTTTTT
- 1 1 2 1 2 1 1 2 2 4 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3			

```
2104 CHARLINI HILLI HILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2344 CAGGAGACATICAAACGTGTTTTGATCAAAGAGAGGAGTATGTATTATAGAATTC 2403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2764 GATGEGERE PEAAAAGAAGEETSAAGGAAGGAACCCTAAACCAGGAAAAAACIA 2763
                                                                                                                                                                                                                                                                                  2164 TIAGAACAIAICHIIIIIIIIIII 2223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2284 AATATAGACCTTAAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCTG1: 2343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2050 CAGGAGACATICAAACGIGITIIGAICAAAGAAGAGGAGIAIGAIICIAIIAIAAAAIC 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2404 TATAACTCGGTCTTCATGCAGAGACTGAAACAAATATITTGCAGTATGCTTCCACCAGG 2463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2464 CCCCCTACCTTGTCACAATACCTCACATTCCTCGAAGCCCTTACAAGTTTGCTACTTGTCA 2523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2230 COTTANGATEOTSGAAGASAAGAATAIAITEGAGGGGAAGAGGGGAAAAAT 2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2524 CONTRACKRATICOTKRAGGGAACATCIAIAITICACCCTGAAGAGTCCAIAIAAAAII 2583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2584 TCNCAAGGTCTGCCAACACCAAAAAAGGCTCCAAGATCAAGAATCTTAGTATCAATT 2643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1870 TIAGAACAIAICATCIGGACCCTIIICCAGCACACCIGCAGAAIGAGIAIGAACTCAIG 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                            1930 AGAGACAGCATTIGGACCAAATTAIGAFGTGTICCAIGTATGGCAIAIGCAAAGIGAAG 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2110 TATAACHGGGTGTTTGATGGAGAGGAAACAAATATTTGGAGTATGGTTGGAGGAGG 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Z170 CCCCTACCIISICACCANIACICAGATICCICGAAGCCCIIACAAGITICCIAGIICA 2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2290 TCAGAAGGTCTGCCAACACCAACAAAATGACTCCAAGATGAAAATGTTAGTATCAATT 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2470 OCCTTPCATATTGAAGGALGAGATGAAGCAGALGGAAGTAAACALGTCCCACGAGAGGT 252%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2530 AAAITICAGCAGAAACTGGCAGAAATGACTTCIACTCGAACACGAATGCAAAAAGCAGAAA 2585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2590 ATGANTGATAGCATGGATACCTCAAACAAGGAAGAGAAAATGAAGAATCTCACGACCTTGGT 2649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2884 ATGAATGATGGATGGATGCATAOCTCAAACAAGAGAGAAAATGAGAGAGACGTGGT 2943
1810 CGGCTAGCCTAICTCCGGGCTAAATACATTIGIGAACGCCTTCTGTGAGCACACAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2224 AGAGACAGGCATTTGGACCAAATTAIGAIGTGTTCCAIGTAIGGCAIAIGCAAAGIGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1990 AATATAGACCTIAAATICAAAAICAIIGIAACAGAIACAAGGAICITCCICAIGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2650 GGACACTCTACACCTCTCGGATTCTCTCTCTCGACACATGTGACTGTAI 2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2944 GGACACTGTGTACACCTCTGGATTCATGTCTCTCACACAGATGTGACTGTAT 2994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Gregory, Richard J.
APPLICANT: Wills, Ken N.
APPLICANT: Wills, Ken N.
THILL OF INVENTION: Recombinant Adenoviral Vector and
THILE OF INVENTION: Methods of Use
NUMBER OF SEQUENCES: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 7, Application US/08959638
Patent No. 5932210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-959-638-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                  δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  οp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

us-09-026-459a-30.rni

```
..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 664 CAACCAGAGAATICGATALCTACTGAAATICGGGATTGGTGAAAAGTTTCTGG 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           190 ACTITIACTGASCIACAGAAAAAQAIAGAAATCAGTGGCATAAATTGTTTAACTTAGIA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   250 AAAGAAATIGAFASCAGTACSCAATIGATAATGCIATGTCAAGAGGCGTTGAAGAAGTAT 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 370 CAACCOAGATTCGATATCTACTGAAAIAAATTCTGCAITGGTGCTAAAAGFITCTTGG 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70 TTAACTTGGGAGAAAGTTECATCTGTGGATGGATTTGGGAGGTTATATTCAAAAGAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         964 TIAACTTGGGAGAAAGTTTGATCTGTGGATGGAGTATTGGGGAGGTTATATTTGAAAAGAAA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      130 AAGGAACTGEGGGGAAFCEGTEFFATEGCAGCAGFEGACGTAGATGAGATGEGFFC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             544 AAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTAT 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       410 GATGTATTGTAGTGTTGGAAATTGGAAAGGAGATGTGAACTTATATATTGGCA 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      604 GATGTATTGTTTGGACTGTTGAGGAAATTGGAAAGGAGATGTGAACTTATATATTTGACA 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . Match 79.2%; Score 2688; DH 2; Length 2995; Local Similarity 100.0\%; Pred. No. 0; ws 2688, Conservative 0, Mismatches 0; Indels 0;
                                       4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.25
"URRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Campbell Cathryn A. PROSTSTRATION NUMBER: 31,815
PEGERENCE/DACKET NUMBER: P-CJ 1192
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: USZORZ328,673
                                                                                                                                                                                                                                                                                                                                                                                                  FILLING DATE: 25 OCT-1994
APPLICATION NUMBER: US 08/233,777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US 08/142,669
                                                                                                                                                                                                                                                                                         US/08/959.638
                                                                                                                                                                                                COMPUTER: IBM PC COMPALIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                  ADDRESSEE: Campbell and Flores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-8949
INFORMATION FOR SEU ID NO: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 19-MAY-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 25-00T-1993
APTORNEY/AGENT INFORMATION:
                                                                                                                                                                             Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 2688, Conservative
                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: single
CORRESPONDENCE ADDRESS:
                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              139..232
                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid
                                                               San Diego
California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                        TASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                           USA
                                                                                                                                                                           MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                FILLING DATE:
                                                                                                                                Z1120 : 111.Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patrollogy:
                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US 08 959 638 7
                                            STREET:
                                                                                    STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Querry Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
```

```
970 AGGACTETTATGAACACTATCCAACAATTAATGATGATTTTAAATTTAAATTTAAAGTGATCAA 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1030 CCTTCAGAAATC1GATT1CC1ATTTTAACAACTGCACAGTGAATGAAAGAAAATATA 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1210 GTAATGGAATGCATGCTTAAATCAGAAGAAGAAGATTALGGATTGAAAATTTTAGAAA 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1270 CTTCTGAATGACAACATTTTTCATATGTCTTTATTGGGGTGGGGCTCTTGAGGTTGTAATG 1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1144 PEPETTGGATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGA 1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              204 ACCACGAAAAAGTAACCTTGATGAAGAGCTGAATTCCTCCCCCCCACACATTCAGT 1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1090 CTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAAAATTTGCTAAAAHTGGGGA 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1624 GCCACATATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTGGTCTTTGCCA 1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1390 TGGATTCTGAATGTGCTTAATTTAAAAGGCTTTGATTTTTACAAAGTGALGAAAGTTTT 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1450 ATCAAAGCAGAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACAT 1509
                                                                                                                                                                                                                          670 CITCICIGIRAAGAACA1CAATGIAATATAGAGGGGGGAAAAATGITATTICAAAAAT 729
                                                                                                                                                                                                                                                                                                                                                 730 ITTALACCITITATGAATTCTCTCGACTTGTAACATCTAATGGACTTCCAGAGTTGAA 789
                                                                                                                                                                                                                                                                                                                                                                                                                     790 AATCTTTCTAAACGATACGAAGAATTTATCTTAAAAATAAAGATGTAGATGTAAGATTA 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            910 ACACCACGACAAAAAGTAACCTTGATGAAGAGGTGAATGTAATTCCTCCACACACTCCAGTT 969
                                                                                                                                        550 AAAGAACCATATAAAACAGCTGTTATATACCCATTAATGGTTCACCTCGAACACCAGGCGA 609
                                                                                                                                                                           844 AAAGAACCATATAAAACAGCTGTTATACCCATTAATGGTTGACCTGGAAGACGGAGGGA 903
                                                                                                                                                                                                        K10 GGLCAGAACAGGAGTGCACGGATAGCAAAACTAGTTAGAAATGATACAAAGAATTATTGAA 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      850 TTTTTGGATCATGATAAAACTCTTGAGACTGATTGTATAGACAGTTTTTGAAACACAGAGA 909
430 ATCACATTTTTATTAGCIAAAGGGGAAGIALIACAAATGGAAGAIGTTGGIGATTICA 489
                490 TTTCAGTTAATGCFATGTGTCCTTGACTATTTTAAACTCTCTCACCTCTCATGTTGTTGCTC 549
                                                                                                    784 PTTICACIFTAATGCTATGTGTCCTTGACTATTTTATTAAAQTCTCACCTCCCATGTTGCTC 843
                                                                                                                                                           .qq
---
 ò
                               q
                                                                 ò
                                                                                                  9
                                                                                                                                        ò
                                                                                                                                                                       q
                                                                                                                                                                                                          ें
                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                              हें
                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 _{\rm Q}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
```

```
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/328,673A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product= "RB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match, 79.2%, Score 2686.4, Best Local Similarity 100.0%; Pred. No. 0; Matches 2687; Conservative 0, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER- HS 08/142,559
FILING DATE: 25-0CT-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER, US 08/233,669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMFUTER, IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note- "retinoblastoma tumor so
SEQUENCE DESCRIPTION: SEQ ID NO: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION,
TELEPHONE: (415) 576-0200
TELEPAX: (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 25-Oct-1994
CLASSIFICATION, <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 7, Application US/08328673A Patent No. 6210939 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Gregory, Richard J. Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 26-APR-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM.
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Maneval, Daniel C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Smith, Timothy S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139..2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 7: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE, nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :OCAT TON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-328-673A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-328-673A-7
                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
                                                                                                                                                               οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ت
ت
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
1510 OGAATCATGGAATCCCTTGCATGGCTCTCAGATTCACCTTATTGATCTTGATCTAAACAA 1569
                                                        1630 CICCAGAATAATCACACTGCAGCAGATATGTATCTTTCTCCTGTAAGAACTCTCCAAAGAAA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2104 CONTRACTOR AND THE STATE OF THE STATE O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2204 GACCORONGENGET FAAAFAACHOOTIGAAGAAAGAAGAGAGAGAGAGAAAAGAAAAGTA 2763
                                                                                                                                                                                              1570 ICAAAGGACCGAGAAAAAAAAAAAAGGTIGAAATGTGGTIGTGCITAATGTTGCT 1629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1924 CTGCAGAATAATCACACTGCAGAGATATGTATCTTTCTCCTGTAAGATCTGCAGAAGAAA 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1690 AAAGGTICAACTACGCGTGTAAATTCTACTGCAAATGCAGAGACAAAAAGCAACCTCAGCC 1749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1950 TICCAGACCCAGAAGCCATIGAAATETACCTCTTTTCACTGTTTTTATAAAAAGTCTAT 1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1044 TICCAGACOCAGAAAGCATGAAATCTACCTCTCTTCACTGTTTATAAAAAAGTGTAT 2103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1870 ITAGAACATATCATCTGGACCCTIIICCAGCACACACAGAATGAGTAGAACTCATG 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1930 AGAGACAGCATTTGGAGGAATTATGATGTGTGTGTATGGATATGCAAAGTGAAG 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2224 AGAGACAGGCATTTGGACCAAATTATGATGTTCCATGTATGGGCATATGGAAAGTGAAG 2283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2050 CASSASACATTCAAACGIGTTTIGATCAAAGAAGAGGAGTATGATTCIATTATACTATIC 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2:10 TATAACTGGGTGTTTGATGGAGAGAGAAAGAAATATTTGGAGTATGCTTGCAGGAGG 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2230 CCCTIACGGATTCCTGGAGGGAATATCTATATTCACCCGGAAGAGTCCATATAAAATT 2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2290 TOAGAAGGTOTGCCAACAAGAAAAAAAAGAAGAAGAAGAAGAATCTTAGTATCAATT 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2584 TCAGAAGGICTGCCAACAACAAAAATGACTCCAAGAICAAGAATCTTAGTAICAAIT 2643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2.350 GG1GAAICATTCGGGACTTCIGAGAAATHAAATAAATGAAATGGTATGAAAGGC 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2470 OCCUPATATHGAAGGATGAGATGAAGGAGAAGTAAAAGATGAAAGTAAAAGATGTGCCAGGAGACTGC 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25.30 AAA ITTOAGCAGAAOTIGCOAGAAATTOTAGGGGAAGGAGGAATGGAAAAGGAAA 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2424 AAATI CACCAGAAACTGGGAGAAATGACTTGTACTGGAAGGAGGAATGCAAAAAGGAGAAA 2883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PEGO DE CARACTATACA ESCALA PARA A CARA CARA CARA CARA ESCALA CARACTARA CARAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1999 AATATAGACCTTAAATTCAAAATCATTCTAACAACCATACAAGGATCTTCCTCATGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                  ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ≥;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
```

```
DB 4, Lungth 2995;
2944 GGACACTGTGTACACCE TGGATFGTTGTCATCACACACACGACGC 2991
                                                                                                                                                                                                                               TITLE OF INVENTION: Recombinant Adenoviral Vector and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fatentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                  ADDRESSEE, Townsend and Townsend and Crew Li. STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             016440-000420US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "retinoblastoma tumor suppressor"
```

0

67 17P	AAGGAACTGTGGGGAATCTGTATTTGCAGCAGTTGACCTAGATGAGATGTCGTTC HTTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTH	189 483
ey eb	ACTITIACTGACCIACAAAAAACATAGAAATCAGICCATAAATICITITAACTTACTTA 	249 543
5 3	AAATTGATAYCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTAT 	309
9.8 10b	GALSTALIGETTIGGACTETTGAGAAATIGGAAAGGACATGTGAACTTATATATATTGACA 	369 663
07 06	ADPACH COATALCTACTOAAATAAA ITCI GCA INGCI COTAAAAGI ITTCI TI CO EEEE EEEE EEEE EEEE EEEEEEEEEEEEEEEE	429
57 54	ATCACATITITATTAGCTAAAGGGAAGTATTACAAATGGAAGATGATGATTTCA 	489 783
5. 15. 15.	THE AGE TAKEN OF THE PROPERTY	549 843
Å 0 Å	AAAGAACCATATAAAACGCGCTTTATACCCATTAATGGTTCACCTCGAACACCCAGGCGA 	609 903
\$ <del>2</del>	GGTCAGAACAGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAA 	669 963
. 45 5 €	GPTCTCTGFAAAGAACATGAAFGTAAFATAGATGAOGTGAAAAATGFTTATFTCAAAAAT 	729 1023
57 12p	ATACCITELIA IGAALICEETIOGACITGIAACALCEAGACITGACTECCAGAGGETGA ELELLI IIII IIIIIIIIIIIIIIIIIIIIIIIIIII	789 1083
\$ 5 £	AATCTTTCTAAAGSAFAGSAAATTTATCTTAAAAATAAAGATCTAGAGGAGATAA 	849 1143
55 CV	CAGAGA 	909 1203
\$ q	ACACCACAAAAAAGTAACCTTGATGAAGAGTGAATGTAATTGCTGCACACACTGCAGTTTTTTTT	969 1263
	ACTOTTATOAACACTATOCAACAATTAATGATGATTTTAAATTCAGGAAGTGATCAA 	1029 1323
\$ £	CCTICAGAAAATCIGATTICCTATTTTAACAACIGCACAGTGAATCCAAAAGAAAGTATA 	1089 1383
55 GZ	CTGAAAAGAGTGAAGGATAGGATACATCTTFAAAGAGAAATITGGTAAAGCTGT TTTTTTTTTTTTTTTTTTTTTTTTTTT	1149
5 2	CAGGITGTGTGGAAATTGGATGACAGGATAGAAACTTGGAGTTGGTTG	20.

ολ	1210	GTAATGGAATGCATGCTTAAATGAGAAGAAGAAGATTATGCATTGAAAATTTAGAAATTAGAAAAAAAA
qa.	1504	GTAATGGAATCCATGCTTAAATCAGAAGAAGGACGATTATCCATTCAAAATTTTAGCAAA 1563
	1270	270 CTTCTGAATGACATTTTCATAGTCTTTATTGGGTGGGTCTCTTGAGTTGTAATG 1329
a :	1004	CTICIGAATGACAACATTTTCATATGTCTTATTGCGTGCGCTCTTGAGGTTGTAATG 1623
S 5	1530	00.045-47-47.055.050.051-67-47-47.050.051-67-47-67-45.07-47-67-47-47-47-47-47-47-47-47-47-47-47-47-47
\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1340	TIGGATHORICAN CHOCKSTANTITA AAAA OO
7 Q	1684	TGGATTCTGAATGTGCTTAAATTAAAAGCCTTTGATTTTACAAAGGGAAGTTTT 174
٥	1450	ATCAAAGCAAGCAAACCAATTGACAAGAAAATGATAAAAAATTTAGAAAGCATGGAAAATT 1500
g q	1744	THE HELLER HELLER HELLER HELLER HELLER HELLER HELLER AND ANGER AND AND ANGER AND ANGE AND
Qy	1510	CGAATCATGGAATCCCTTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTAAACAA 1569
qq	1804	CGAATCATGGGATCCCTTGCATGGCTCTCAGCTTTATTTTTTTT
ОУ	1570	TCAAAGGACCGAGAAGGACGAACTGATTGAATCTGCTTGTTGTTAATCTGCT 1629
qa	1864	TCAAAGGACGAGAAGGACAACTGATCAACCTGAATCTGATTGTGTTTTTTTT
οχ	1630	CTCCAGAATAATCACACTGCAGAGATATGTATCTTTCTCCTGTAAGATATCTCTCAGAAAAAAAA
Q(I	1924	CTCCAGAATAATCACACTGCAGAGATATGTATGTTCTTCTCTTTTTTTT
ολ	1690	AAAGGIICAACIACGGGGGGTGTAAATHCTACTGCAAAAGGCAGAAGAACAAAGAAACCTCAAGC 1749
qq	1984	AAAGGTTCAACTACGGGTGTAAATTCTACTGCAAATGCAGAGACACAAGAAGAACTACAGCC 2043
Qy	1750	TITICAGAGCCAGAAGCA ITGAAATCI ACCIGICTITICAGTGTI TITATAAAAAG IGTATI 1809
qq	2044	TTCCAGACCCAGAAGCATTGAAATCTACTCTTTCACTGTTTTATAAAAAGTGTAT 2103
ζ	1810	GGGCTAGCCTALCTCCGCTAAATACACTTGTGAACGCCTCTGTGTGTGTGAACACAGAA 1869
00 00	2104	COOCHAGCCHAICHCGGOCTAAATACACTTTGLGAACGCCTTGLGTCTGAGAACGCAAA 216.4
QY	1870	TTAGAACATATCATCTGGACCCTTTTCYAGCACACCCTGCAGAAGAGGAGAAGACTCATG 1929
qa	2164	TTAGAACATATCATCTGGACCCTTTTCCAGCACACCTGCAGAATGAAT
Qγ	1930	AGAGAGGCATTTGGACZAATTATCATGTGTTCCATGTATGGTATG
qq	2224	AGAGACAGGCATTTGGACCAAATTATGATCTGI TCCATGTATGGCATATGGAAAGTGAAG
ς	1990	AATATAGACCITAAATICAAAATCATGTAACAGCATACAAAGATCTTCCTCATGTT 2049
qu	2284	AATATAGAGGTTAAATTCAAAATCATTGTAAGAGGATAGAAGGATGTTGCTGATGCTGTT 2343
ολ	2050	CAGGAGACATTCAAACGTGTTTGATCAAGAAGAGGAGTATGATCTATTATAGTATTC 2109
d d	2344	CAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAGGAGTATGATTGTTATAGTATTG 2403
οy	2110	TATAACTCGGTCTTCATGCAGAGACTCAAAACAAATATTTTGCAATATGCTTCCACCAGG 2169
qq	2404	TATAACTCCGGTCTTCATGCAGAGAGTGAAAACAAATATTTGCAGTATGCTTCCACCAGG 2463
ò.		CCCCCTACCTGCACCAATACCTCAATACTCGAAGCCCTTACAAGTTFCTAGTFCA 2229
q		CCCCCTACCTTGTCACCAATACCTCACATTGCTGGAAGGCTTACAAGGTTGCTTAGTGA 2523
65 45		CCCTTACGGATTCCTGGAGGAACATCTATATTTCACCCTGAAGAGTCCATATAAAATT 22H9
an n	<b>5</b> 757	CCCTACGGATTCCTGGAGGAACATCTATATTTCACCCTGAAGAGTCCATATAAAATT 2583
δ	2290	TCAGAAGGTCTCCCAACAACAAAAATCACTCCAAGAATCTTACTATCAATT 2349

· ·

```
3
POST CONTITUENT TO A MANAGEMENT AND SAME TAMAGEMENT OF CONTITUENT OF THE SAME TAMAGEMENT OF CONTITUENT OF THE SAME TAMAGEMENT OF CONTITUENT OF THE SAME TAMAGEMENT OF THE SAME TAMAGEME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       244 SSEGAATOREISONATOREAAANTEORAAAAAAAAAAGAAGAAGAAGAAGAAGA 2703
                                                                                                                                                                                                                                                                                               2824 AAATTTPAGGAGAAAACTGGCAGAAACTGACTTGTAGTCGAACAGGAATGCAAAAGGAGAAA 2883
                                                                                                                                                                                                                                                       2650 GGACACTGTGTATATATATATATATATATATATATAAAA14TGATG 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPEPATING SYSTEM: PC-DOS/MS-DOS
SUFTWARP: Patentin Pelease #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E: Choate, Hall & Stewart
Exchange Place, 53 State Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Livingston, David M.
APPLICANT: Even, Mark E.
TITLE OF INVENTION: Tumor Suppressor
CORRESPONDENCES: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US/07/708,962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1, Application US/07708962
Patient No. 5262321
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33,407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM FYPE: Floppy disk
COMPUIER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE, TOOKLIT NUMBER. DEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (617) 227-5020
(617) 227-7566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2808 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  URRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEC ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19910531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIRANDEDNESS. double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Massachusetts: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM (PDF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Kennedy, Bill
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUCLETC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ္ရ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 19
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       289374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE IYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HYPOTHELICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08 (07 - 708 - 962 - 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIRRET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-07-708-962-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIAIE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
```

Length 1808,

DB 1;

Score 68.8;

QUPITY MALCE

```
1820 ATCTCCOSTINANIACATITGCSAACCCTTCTGTCGAGCCCACAATTACAAAT 1879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2117 ATITIONATION OF PRITITIONAL STRUCTURE AND SAMA STANDARD AND SAME STRUCTURE STRUCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000 ITAAATTOAAAATOATTOTAA~AGAATAAAAGATOTTOGTGATGETSILGAGAAGAAT 2053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1880 TCATCTGGACCTTTTCCACACACOCTCCAAAATAAAGAAAAAATGAAAGAGAGGC 1939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1940 ATTTGCACCAAATTATCATGTTCCATGTATGGCATATGCAAAGTGAAGATATAGACC 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2177 GAACTITTAASAAATTATSAAAASTIALAGSAA GASSGGAAGGIAATASTSAGSTAL 2236
                                                            3; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: "THMOR SUPPRESSOR PROTEIN PERS, TITLE OF INVENTION: HELATED GENE PROPINCIE, AND DNA ENCODING TITLE OF INVENTION: THEREFOR"
         Pred. No. 1.1e~06;
0; Mismatches 147; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7: Temple University-Of The Commonwealth
7: System of Higher Education
406 University Services Building
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE. Diskette, 3.50 inch, 720 Kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JMBER: US/08/106,493A
August 12, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 6056-188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application HS/OR106493A Patent No. 5457049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2060 TOAAAOGTGTTTTBAATOAAA 2074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2237 ATAGAAGTGTTCIGCTGAAA 2256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME. Mullins, J.G.
REGISTRATION NUMBER: 33,073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
Best Local Similarity 53.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antonio Giordano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: MS-DOS
SOFTWARE, WordPerfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : (215) 568-8383
(215) 568-5549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: No. 5457049e
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3249 base pairs
                                                       Matches 170, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 735
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic acid
EDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pennsylvania
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 400 our...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IBM PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-106-493A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-106-493A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE:
```

```
1760 AGAAGCCAITGAAAFCTACCTGTTTTGAGTGTTTATAAAAAAGTGTAGGGTAGCCI 1819
                                                                                                                                                                                                                                           2312 ATANGANG CANGARANG CONTINUE TO THE TOTAL TRANSPORTATION OF THE TANGANG CONTINUE AND AN ANALYSIS OF THE TANGANG CONTINUE AND ANALYSIS OF THE TANGANG CONTIN
                                                                                                                                                                                                                                                                                                                                                                                        1820 ATCTCCGOTIAAATACACTI GGGAACICTCTGAGGGGGGGGAATTAGAACATA 1879
                                                                                                                                                                                                                                                                                                                                                                                                                                     24.29 AAATCEDACCOCTITIE OA EFCECOATAA FEGACICIONEGAACITATGATGACGGACAGC 2488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1940 ATTEGRACCAAATIATGATGTGTTGCATGTGTGTGTGTATGCAAAGGAAAGAATATAGACC 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2489 AFCESSACIONATIATAANGTOTGCCATTTATGTSATGSCOAAAGGTCAGAAAAGAAAA 2548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2549 ANTENTENAGAACATIANATHOTTATAJAACTIAACCGGAJGCCNAGAGCTAGTGT 2668
                                                                                                         4; Caps
. 2.0%; Score 68.2; DB-1; Length 3249; Similarity 54.0%; Pred. No. 1.6c-06; 00.0servative 0; Mismatches 148; Indels 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seidel, Gonda, Lavorqua & Monaco, P.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Antonio Giordano
TITLE OF INVENTION: "TOMOR SUPPRESSOR PROTEIN
TITLE OF INVENTION: PRB2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Diskette, 4.50 inch, 720 Kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1800 Two Penn Center Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM: MS 10-8
SPECIARE: WOLDFOFT FOLLS
SPECIAL STATION DATE: 0.578/129, 264
APPLICATION NUMBER: 0.5/78/129, 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 08/106,493
FILING DATE: August 12, 1993
ATFORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Application 03/08429264
Patent No. 5542440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2040 PCAAAACGTGTTTTGATCAAA3 2080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2609 ALAGAAGIGITITIAAAAAG 2629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESISTRATION NUMBER: 30,488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 60° LELECHMUNICALION IN PMALLON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SER BABS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEU ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (215) 56B B3B (215) 56B 5549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4249 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                    Matches 170; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IYPE: nucleic acid
SIKANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "LASSIFICATION" 540
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               55323400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCESS: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pennsylvania
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1BM PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      □.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monaro,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    THE HARME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Traffic Line 3Y:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COLINIERY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US OB 429 264 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HELLEYAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . H. I. J. N. H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US U8 42'9 264 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET
               Otterry Materia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STAIE
                                                            100.001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FESTILI 14
```

```
2429 AAAPETGGACCIGCTTIGAATTCTCCATAATTCACCACTGTCTGGAACTTATGAAGGAAAA 2488
                                                                                                                                                                                                                                                                                                                                                         1760 AGAAGCCATTGAAATGTACCTCTGTTTCACTGTTTTATAAAAAAGGGTATAGGCT 1819
                                                                                                                                                                   1820 ATCLCCGCCTAAATACACTITICTGAACOOTTICTGTCTGAGCACCAGAATAGAAGATA 1879
                                                                                                                                                                                       1880 ICATCTGGACCCTTTCCAGCACACTGCAGAAIGAGIAIGAACTCATGAGAGAGAGAG
                                                                                                                                                                                                                                                                                                                                       2000 TTAAATTCAAAALCATTGIAACAGGATACAAGGATCTICATGCTGTFCAGGAGAL 2059
                                                                                                                                                                                                                                                                                                                                                                                                                                               2.42 ATAGACCACACACACACACTCITATECCTTICITAGAAAGATATACATTIAGGAA 2.631
                                       3; Caps
2.0%; Score 68.2; DB L; Length 4249; 54.0%; Pred, No. 1.6e 06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: METHODS FOR THE DIAGNOSIS AND PRESENTITLE OF INVENTION: OF CANCER
                 Pred. No. 1.6e 06;
0; Mismatches 148; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: SEIDEL, GONDA, LAVORGNA & MCNACO, P.C. STREET: Suite 1800 Iwo Penn Center Plaza
CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Roleage #1.0, Version #1.40 CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/832,884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Application Dozodroz883
Patent No. 5807681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2060 TCAAACGTGTTTTGATCAAAG 2080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2609 ATAGAAGTGTTTTGATAAAAG 2629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30,480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Giordano, Antonio
APPLICANT: Baldi, Alphonso
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; (215) 568-8383
(215) 568 5549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Monaco, Daniel A
REGISTRATION NUMBER: 30,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4854 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
               Hest Local Similarity 53.09
Matches 170; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SHOTID NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70..3489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: CONA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ϋ́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-842-883-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGIH:
  Onery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S.1 A.1 F.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                        Ś
```

```
1820 ATCTCCGGCTAAATACACTTTGTGAACGCCTTCTGTGTGAGCACCCAGAATTAGAACATA 1879
                                                                                                                                                                                                                                                                                                                       25.1.2 @1010.1.00CT11CGGGATCTC1G1G1G---CCAAACTAGATATTTTGAGAAATTGAGGAAAA 2668
                                                                                                                                                                                                                                                                                                                                                                                                                                      2.6. AAATCTGGACCTGCTTTGAATTCTCCATAATTCAGTGTCCTGAACTTATGATGGACAGAC 2728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000 IIAAAIICAAAAICATIGIAACAGCATACAAGGAICIICCICAIGCIGIICAGGAGACAI 2059
                                                                                                                                                                                                                                                                                                                                                                                                        1862 TOATOTGGACCCITITCCAGCACACOTGCAGAAIGAGIATGAACICATGAGAGACAGGC 1939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2789 ACTOCH CCAGAACAITATOGCTIGHTATAGGACTCAGCCCGGAGCCGGAGCCAGGTCT 2848
                                                      Query Match 2.0%; Score 68.2; DB 1; Length 4853; Best Local Similarity 53.0%; Pred. No. 1.8e-06; Matches 170; Conservative 0; Mismatches 148; Indels 3.
US-UH-842-883-1
```

Search campleted: January 17, 2003, 18:19:53 Job time : 103.605 sees

2.6: TCAAAAGGTGTTTTGATCAAAG 2080

284 - ATAGAAGTGTTTIGATAAAAG 2869

1;

3, Gaps

```
(without alignments)
6107.852 Million cell updates/sec
                                                                                                          January 18, 2003, 04:41:54; Search time 62,1223 Seconds
                                                                                                                                                                                                                         2004 Compagen Ltd.
                                                                         nucleic search, using frame_plus.p2n mode!
Generate version 5.1.3
                                                                                                                                                                                                                                                                                                                                                                                                                 lotal number of hits satisfying chosen parameters;
                                                                                                                                                                                                                                                                                                                                                                             191868 seqs, 222934149 residues
                                                                                                                                                                                                                                                                                                                    7.0
                                                                                                                                                                                                                                                                                0.5
                                                                                                                                                                                                                                                                              Xqapop 10.0 , Xqapext
Yqapop 10.0 , Yqapext
                   Copyright (c) 1993
                                                                                                                                                                                                                                                                                                                    Equpop 6.0 , Equpext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fost processing: Minimum Match 0% Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Michimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                       DS 09 026-459A 49
                                                                                                                                                                                                                                                             REOSHW62
                                                                                                                                                                                                         4.482
                                                                                                                                                                                                     Perfort score:
                                                                                                                                                                                                                                                               Scoring table:
                                                                         M protein
                                                                                                                                                                                                                           Sequences
                                                                                                                                                                                                                                                                                                                                                                               Searched
```

Command line parameters:

Listing first 45 summaries

| MillEL | Irame | picking del | DEV-XID | DEV

but abases :

/cqu2\_5/pt-cdata/1/pubpna/US09\_NEW\_PUH.scqt:\*/ /cqn2\_6/pt-cdata/1/pubpna/US09\_PUHcOMH\_scqt:\*/ /cqn2\_6/pt-cdata/1/pubpna/US10\_NEW\_PUH.scqt:\* /cqu2\_6/pt odata/1/pulpma/US10\_PURCOMB. seq:\*
/cqu2\_6/pt odata/1/pulpma/US60\_NEW\_PUB\_soq:\*
/cqu2\_6/pt odata/1/pulpma/US60\_NEW\_PUB\_soq:\* /cqnz\_6/ptodata/i/pubpna/US07\_NEW\_pUB.seq:\*/cqnz\_6/ptodata/1/pubpna/PCTUS\_PUBCOMB.seq:\* Published\_Applications\_NA:\*

1: Zeunz 6/ptodata/I/pubpoa/USO2\_NBWDBB.seq:\*

2: Zeunz\_6/ptodata/I/pubpoa/PCT\_NBW\_PUB.seq:\*

3: Zeunz\_6/ptodata/I/pubpoa\_USO6\_NBW\_PUB.seq:\*

4: Zeunz\_6/ptodata/I/pubpoa\_USO6\_NBW\_PUB.seq:\* /cqn2\_6/pt.odata/1/pubpna/US08\_NEW\_PUB.seq:\*/cqn2\_6/pt.odata/1/pubpna/US08\_PUBCOMR\_seq:\*

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. Prod. No. is the number of results predicted by chance to have a

## SUMMARIES

bescription	Sequence 38, Appl Sequence 1, Appl Sequence 1, Appl Sequence 143, Appl	
9	0.0 (323 10 US-09 469-522 38 9.2 461 10 US 09 469-522-40 B.9 (555 10 US 09 469-522-1 8.9 4639 9 US-09 954-531-143	
÷	. <u>9</u> 22,	
odery Match Length DB ID	4324 4461 4555 4839	
Ouery Match I	3222	
Score	4 5 8 2 4 14 9 4 5 3 4 5 5 4 5 3 5 5	
Respire	<i>□ // *</i> 4	

ŗ	ζ.	Serjandrete 50, Appel	, 4.4.	. 7	, ;;	88	٠	*E	Sequence 42, April	. 46.	Σ. Σ.	4.4	47, A	, -	7,	Sequence 4, Appli	7	-	296,	Sequence 305, App	Sequence 216, App	Sequence 164, App.	4 461,	2.92.	1154,	Sequence 186, App.	546.	Sequence 4, Appli		Sequence 9859, Ap	Sequence 51, Appe	Sequence 1242, Ap	Sequence 145, App	Sequence 55, Appl	Sequence 59, Appl	175,	4196,	Sequence 8043, Ap	Sequence 459, App.	Sequence 47, Appl	· ~
10 me 00 80 01 01	;	33	10 08 09 469 522:34	10 US-09 469 522 32	US 09 469	10 08-09-469-522-28	-694-60-	025 03 463	US: 0.9 469	10 US-09-469 522 46	-469	10 08 09:449 522:44	9 US 09:292 758 37	60 80	0S = 10		US 09 864	10 US 09 864 761-19910	50-SD	10 US-09-864 864 305	9 US-10 108 605 216		10 US-09-864-864-336	08 09 864	08:09:954	10 US 09 967 768A: 186		US-04-882		10 08-09-815 24z-9859	9 08-10-071 766 51	08-09-048-8	-096 60-SD	US-09-801 468	- IO8 - 60 - SO	10 US-09-960-253-175	10 US 09 815 212-4196	10 US 09-815 242-8043	12 US 10 044 090 359	10 US 05 375 407 47	9 118-10-01-38 9
5000 6 60			rą.	96.2 3323	36.2 3392	۲.	7.	۲.	4	91.1 4377	90.9 3384	84.0 3161	0.	11.8 3747	11.8 3747	8.1 320%	5.5 411	5.0 129	4.1 304	3.5 5864	3.4 3624	3.4 10096	3.3 6774	3.3 10190	3.3 10211	3.3 10211	3.4 3.24	3.4 9274	3.2 4754	3.2 2637	3.1 8494	3.1 2526	_	С.	٠.	5.	2.9 2988	6.	2.9 7792	2.9 3774	5.88 30.83
5 4303 5		6 4423.5	7 4217	8 4217	9 4217	10 4217	11 4192	12 4017	13 4007	14 3991	15 3984	16 3683				20 355.5	21 243	22 218		24 153	25 148.5	26 148.5	7	28 146	29 146	30 146	31 145.5	42 143	33 141	14 138.5		36 134.5		12	39 17.8	12	41 125.5	42 125.5		500	7 701 2

## ALIGNMENIS

```
TITLE OF INVENTION: MODIFIED RELIXEBLASIONALISMOR COFFRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                   ALDRESSEE: Arneld, White a learkee STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER, 08,736,463,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-Los/MS Los
                                                                                                                                            Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 22-Dec-1999
                         Sequence 38, Application 08/09469522
                                                                                                                                                                                                                  PROTEINS
                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                  COPPESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
                                                                                            APPLICANT: Xu, Hong-Ji
                                                                                                                        Hu, Shi-Xue
                                                                                                                                                                  Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 77210-4444
                                          Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                     CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                 ×
                                                                                                                                                                                                                                                                                                                                                            STATE
US-09-469 522-38
```

```
12. PheLeuLeuAlaLysGlyGluValLeuGlnMetGluAspAspLeuVallleSerPheGln 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27 ACTGAGGTACAGAAAAACATAGAAATCAGTGTCCATAAATTGTTTTAACTTTACTAAAAGAA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  247 TIGITIGCACICITCAGCAAAFIGGAAAGGAAATHIGAAATTIAIAIAITTIGACACAAAAACC 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101 SerserserTleSerThroluTleAsnSerAlaLeuValLeuLysValSerTrpTleThr 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     407 AGMAGTIGGATATGTAGTGAAATAAATTGGTTGGTTGGTGGTTAAAAGTTTGGATGACAA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141 LeuMetLeuCysValleuAspTyrPhelleLysLeuSerProProMetLeuLeuLysGlu 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.27 ITAATGCTATGTGTCCTTGACTATTTTATAAACTCTCACCTCCCATGTTGCTCAAAGAA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16. ProTyrtysThrAlaValileFroileAsnSlySerProArgThrFroArgArgSlyGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 AsnArqSerAlaArq11eAlaLysGlnLeuGluAsnAspThrArq1leI1eGluValLeu 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54? AAVAGGAGTGGACGGATATAGCAAAACAAAATGAAAATGAAATTATTGAAGTTGTG 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OpengsCluHisGluCysAsmileAspCluValigsAsmValTyrPhbelysAsmPelle 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MetProProLysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21 FroAlaFroFroProProProProProGluValAspLeuAspGluMetSerPheThrPhe 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41. ThreduceudlotysAsorledlotleserValHisLysPhePheAsorLeuteutysGlo 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 IleAspIhrSerIhrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-326-459A-39 (1-851) x US-09-469-522-38 (1-3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches:
                                                                                                                      REFERENCE/TOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                    DOSATION: 7.2559
SEQUENCE DESCRIPTION: SEQ. ID NOT 38:
09 469-522-38
               APPLICATION NUMBER: 09/026.459
                                                                                                    REGISTRATION NUMBER: 41,071
                                                                                                                                                                   IELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                      LENGIH: 3323 base pairs
                                        FILING DATE: <URKDOWN>
AITOPNEY AAGENT INPOPMATION
NAME: Hibler, David W.
                                                                                                                                                                                         512/474 7577
                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                            STRANDEDNESS: single
                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                            nucleic acid
PRIOR APPLICATION DAFA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4382.00
                                                                                                                                                                                                                                                                                                                     ToPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                               NAME, / K.P.Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
Query Match:
                                                                                                                                                                                            relefax:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Aliquation Scores:
                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
```

```
967 GAAAAPPTGATTTPOPPATTTPPAGAAGTGGAGAGTGAAFGGAAAAAAAAAGAAAGTAJGGAAA 1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1207 AATGAGAACATETETEGATATGEGTETTGGCGTGGGGTGTGGGGTTGTAATGGCCACA 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1267 TATAGTAGAAATATTTAGAATGTTGAATGTGGGAAGAGATTTGTGTTTGCGATGGATT 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u> 1387 GCAGAGGGAACTTGAGAGAGAAATGATAAAACATTTAGAAGGATGTGAACATGGAATG 1446</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1447 ATGGAATGGGTTGPATGGPTGTCAGATFGAGTTTATFTGATGTTATTAAAGAATGAAG 1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1627 TCAACTACGCGTGTAAATICTACTGCAAATGCAGAGACACAAGCAACCTCAGCCTTCCAG 1686
                                                                         201 FroFboMelAssserLewSlyLewVallhrserAssSlyLewProSlaValGluAssLeq 240
                                                                                                                                                                                                                                                                                          341 ArqValLysAspileGlyTyrilePheLysGluLysPheAlaLysAlaValGlyGlnGly 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361 CysValGlulleGlySerClnArgTyrLysLeuGlyValArgLeuTyrTyrArgValMet 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               401 AsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThr 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421 TyrserArgSerThrSerGinAsnLcuAspSerGlyThrAspLcuSerTheProTrpl1e 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    441 LeuAsnValLeuAsnLeuLysAlaPheAspPheTyrLysValIleGluSerPheIleLys 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               461 AlaGluGlyAsnLeuThrArgGluMet1leLysHisLeuGluArgCysGluHisArq1le 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            521 AsnAspHisThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLysCly 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541 SerThrThrArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPhe0110 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    561 ThrelbigsPtoleadysSerThrSerleaSerleaPhrPrigstysVallyrArdiea 580 HIIIIIIIIIIIIIIIIIIIIIIIIIIII
                                                                                                                      667 COMPUTATIGAATTICTICTTGGACTTICTAACATOGGACTTGCAGAGGUTGAAAATICTT 726
                                                                                                                                                                                                                      727 ICIAAACGAIACGAAGAAIIIAICIIAAAAAIAAAGAICIAGAIGAAGAIIAIIIIG 786
                                                                                                                                                                                                                                                                   261 AspHisAspLysThrLeuGlnThrAspScrlleAspScrlheGluThrGlnArgThrPro 280
                                                                                                                                                                                                                                                                                                                                                                 281 ArqLysSerAsnLeuAspGluGluValAsnValileFroFroHisThrProValArqThr 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 ValMetAsaffriloClnGlnLeuMetMetileheuAsnSerAlaSerAspGlnProSer 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          501 AspArgGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGln 520
ScriysArgTyrGluGluIlcTyrLcuLysAsnlysAsplcuAspAlaArgLcuPhclcu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                   ΩÇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                 ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
2407 GATATTGAAGGATCAGAAGGAAGGAAGTAAAACATGTGCCAGGAGAGTCCAAAATTT 2466
                                                                                                                                                                                                                                                                                       2467 CAGGAGAAAGIGGCAGAAAIGACIICIACIICGAAGAGGAAIGCAAAAGGAAAAGIAGAAI 2526
1687 ACCAGAAAGCATTGAAATCTACCTCTTTCACTGTTTTATAAAAAAGTGTATCGGCTA 1746
                                                                                                                    2047 TOGGTCT FOATGOAGAGACTGAAAAAAATATTTTGOAGTATGOTTOOAGGCCCCCT 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2227 GGTCTGCCAACAACCAACAAAAATGACTCCAAGATCAAGAATGTTAGTATCAATTGGTGAA 2286
                                                                             581 AlalyrteuArqteuAsnThrteuCysGluArqtenLeuSerGluHisProGluLeuGlu 600
                                                                                                                                                                                                                                            601 HisHelletrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArgAsp 620
                                                                                                                                                                                                                                                                                                                                                                                                       621 ArqHislanAspClnIleMetMetCysSerMetTyrClylleCysLysValLysAsnIle 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661 ThrPheLysArqValLeuIleLysGluGluGluTyrAspSerIleIleValPheTyrAsn 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    681 SerValPheMetClnArqLeuLysThrAsnIleLeuClnIyrAlaSerThrArqPropro 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   701 throusorproffeproffist teproArgSerProTyrLysPheProSerSerProLeu 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     741 dlyteuprofhr Profht LysMet Thr ProArdSer Arg Heleuval Ser HeGlyGlu 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            761 SerPheGlythrSerGlutysPheGlntysHeAsnGlnMetValCysAsnSerAspArg 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781 ValleuLysArgSerAladiudlySerAsnProProlysProLeuLysLysLeuArgPhe 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   801 ASPITEGIUGIYSerASPGIUAIaASPGIYSeriySBiSLeuProGIYGIUSeriySPhc 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         821 GlofiniysLeuAlaGluMetihrSerihrArgThrArgMetGlniysGlniysMetAsn 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PERMITTER PROGRESS OF THE PERMITTER PROGRAMME SEED AND CONTRACTOR 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841 AspSerMetAspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 40, Application US/99469522
Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US 09 469 522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PESULI 2
                                                                                 5
                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>ئ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <del>-</del>2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
```

```
246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ر
4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaBlaCluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        75 LeutystysTyrAspValleaPheAlaLeuPheSertysteuGluArqThr@ysGluLeu 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ValAsplenAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35 GluMet.SerPheThrPheThrGluLeuGlnLysAsuileGluIleSerValHisLysFthe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            55 PheAsnLeuLysGluIleAspThrSerThrLysValAspAsnAlaMetSerArgLeu
                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-026-459A-39 (1-851) x US-09-469 5.22 40 (1-3461)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21 ProAlaProProProProProProProGlu......
                                                                                                                                                           APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches:
                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            indels:
                                                                                               COMPUTER: IBM PC COMPACIBLE OPERATING SYSTEM: PC-LOSZMS LOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE DESCRIPTION: SEQ ID NO: 40:
                                                                                                                                                                                                                          APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (sdps)
                                                                                                                                                                                                                                                                      NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                        FILING DATE: 22-Dec-1999
CLASSIFICATION: +Unknown +
PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 512/418 3000
                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 3461 base pairs
                                                                                                                                                                                                                                          FILLING DATE: < Unknown>
                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                   512/474 7577
                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7...26.97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4349.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94.878
94.878
99.258
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: Tinear
                                 COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: ODS
CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                      TELF. F. A.X.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ي
د
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  jā.
•••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
```

	euThrGlnProSerSerILeSerThrGluILeAsnSerAlaLeuValLeu 1 	,
	ACANATGGAAGAT 54 211eLysteuserPro 15 1111111111111 FATTAAGTCTCACCT 60	· ·
Promet LeuLeuLysGluProfi 	ProTyrLysThralaValileProlleAsnGlySerProArg 174 	
ProAngAngGlyGln 	The Proargarge of Indiana State of Stat	
ArqflellegluValLeuCys) 	Cystysciubisciucysashiloaspciuvaltysashval 214 	-
rPheLysAssphelle 	LysasoPhotteProPemetasosofloudlyLouValThrserasodlyLou 234 	
ogluvalgluasni.cus GAGGTTGAAAATCTTI	Progluvalgluasni,cusertysargtyrchusluttettriloutysasniysaspi.cu 254 	
ASPA (aArg),cafhc),cuAspH (sAsp),ySThr.  - - - - - - - - - - - - - - - - - - -	spilisaspiysthricudinthraspseriicaspserbhe 274   HTHTHTHTHTHTHTHTHTHTHTHTHTHTHTH   AFCATGATAAAAGTCTTFAGAGTGATTCTATAGAGAGTTTT 966	
ThrellaArgThrProA 	GLETHACH DARGTHRFROARGEGSSERASDLEUASPGLUGLUVALASDVALIHEPROPRO 294 	
HhreroValArgihrV Hilliliiii ActccAGIIAGGACTG	HISTARTYOVATARGTARVATMORASAITARTTEGINGINICUMORMORMORTTECAGASASSET 314 	
iSerAspGInProSerG 	alaseraspoinproserdinasnieulleseriyrPheasnasnCysThrvalasnPro 334 	
tyadiuserileleulysA Hillililililili AAGAAGTAIRGAAAA	ubysaraVallysaspiledyfyrileftebysdulyspheala 354 	-
ysalaval61ycln61yc 	PCINCLYCYSVAIGIAILECHYSerChnargiyriysi.cuclyvalarg 374 	
LoulyriyrArgValMetG 	yrtyrargvalmetchusermetheutysserchushuargleuserthesin 394 	
AsnPheserLysLeuLeuA ++++++++++++++++++++++++++++++++++++	uLeuAsrAspAsnIlePheHisMet SerLeuLeuAlaCysAlaLeu 414 	
	yrSerargSerThrSerGinasn.euAspSerGlythrasp 434 	
LeaserPheProTrp11e1A FiltElTITITITITITI TIGICTFICCCATGGALFC	eleuasnyali.euasni.eul.ysalaPheaspPhetyrtysyal 454 ELLELLITTTTTTTTTTTTTTTTTTTTTACAAAGTG 1506	
eGluserPheIleLysAl	aGluGlyAsnLeuThrArqGluMetIleLysHisLeuGlu 474	

```
1627 CTTATTAAACAATGAAAGGACCAAAGGAGGAAGAAGAAGAGGGTTGAATGTGATGTGTTGT
                                                                                                                                                                                                                        1867 AAAAAAGIGIAICGGCIAACCIAICIGGGGIAAAIAGAGIIIGIGAAGGGCGIIGIGI 1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2347 CCATATAAAATTTCAGAAGGTCTGCCAACACAACAAAATGACTCCAAGATGAGAALG 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2407 TTACTATCAATIGGTGAATCAITCGGGACITCTGAGAAGITCCAGAAAATAAATCAGAIG 2466
                                                                                                                          495 LeulleLysGluSerLysAspArgGluGlyProThrAspHisLeuGluSerAlaCysPro 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            615 TyrGluLenMetArgAspArgHisLeuAspGlnIleMetMetCysSerMetTyrGlyIle 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           695 AlaSerThrArgProProThrLeuSerProIleProHisIleProArgSerProTyrLys 714
                                                    475 ArgCysCluHisArglleMetCluSerLeuAlaTrpLeuSerAspSerProLeuPheAsp 494
                                                                                                                                                                                                     515 LeuAsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArg 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             735 ProTyrLysileSerGluGlyLouProThrFrcThrLycMctThrProArqSerArgile 754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  79% LoutystystysAcyPheAspileSluSlySerAspSluAlaAspSlySerLySHisLeu 814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1567 CGATGTGAAGATGGAATCATGGAATGGGTIGGAAGGGIGIGGAGAIIGAGTITATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                             575 LystysValTyrArgLeuAlaTyrLeuArgLeuAsnThrLeuCysSluArgLeuLeuser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     595 GluffisProGluffeuGluffisTle1leTrp/hrt.cuPheGluffsThri.cuGluAsnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    635 CysLysValLysAsnileAspLeuLysPheLysIleIleValThrAlaTyrLysAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  675 IlelleValPheTyrAsnSerValPheMetGlnArqLeuLysThrAsn1leLeuGlnTyr
                                                                                                                                                                                                                                                                               535 SerProlyslyslysClySerThrThrArgValAsaSerThrAlaAsaAlaClafhrCln
                                                                                                                                                                                                                                                                                                                                                     555 AlaThrSerAlaPheGlnThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2047 IGCAAAATGAAAATATAAACTIAAAAITCAAAAAICATGIAACAGATACAAAGGAICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuValSerIleGlyGluSerPheGlyThrSerGluLysPheGlnLysIleAsnGlnMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . da
---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>}</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
```

```
30 ----
                 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
.
.
                                                                                               qq
                                                                                                                                                                                                            ą
                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                          3
                                                                                                                             Š
                                                                                                                                                      a
                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      쥰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <del>2</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ć
                                                                      ŝ
                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
2587 CCROGANATIC AAATIICAW WAAACHGGAGAAAIGACHGACHGGAACAGAATG 2646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MetProProLysThrProArdLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                           TITLE OF INVENTION: MODIFIED RETINORIASTOMA TOMOR SUPPRESSOR
                       SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
0
7.7
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US U9 U26 459A 49 (1 851) X US 09 469 522-1 (1 3555)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21 ProAlaProProProProProProProProGlu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: 08/09/469,522
APPLIANT DATE: 22 Dec. 1999
CLASSEPPORTON: CURROWN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                indels:
                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ ID NO. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRALION NUMBER: 41,071
                                                                                                                                                                                Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                   MEDIUM LYPE: Floppy disk
                                                                                                           Sequence 1, Application US/09469522
Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 4555 base pairs
                                                                                                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: <Unknown>
ATTORNEYZAGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Bibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                SIREBL: P.O. BOX 4413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMALION FOR SEQ 10 NOT 3: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                    APPLICANT: Xu, Honq Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4333.50
                                                                                                                                                                                               Zhoar, Yundi
                                                                                                                                                                     Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 91.70%
91.70%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ToPoLogY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98.83%
                                                                                                                                                                                                                                                                                                                                       77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SILS
                                                                                                                                                                                                                                                                                               CILY: Houston
                                                                                                                                                                                                                                                                                                                        COUNTRY: USA
                                                                                                                                       CHURKAL INFORMATIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rest Local Similarity:
                                                                                                                                                                                                                                                                                                            SIAIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Acceptational Secures:
                                                                                           US 09 469 522 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US 09 469 522 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match:
DR:
                                                                                 RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ÷
                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
```

```
1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  967 TACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTGGATCATGAT 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1147 ACTATECAACAATIAATGATGTTTTAAATTCAGCAAGTGATGAACCTTCAGAAAATCTG 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27 GACCHGCCTCGTCGTCGCTTGAGTTTTGAAGAACAJAAGAAGATCTGATTTATTGTATTA 186
                                                                                                                                                                                                104 IleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThrPheLeuLeu 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              124 AlalyschydluValleuGlnMetGluAspAspheuVallleSerPheGlnLeuMetLeu 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          164 ThralaValileProlleAsnGlySerProArqThrProArqGlyGluAsnArqSer 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 184 AlaArgiloAlaLysChileuGluAsnAspibraraHeHeGluVallaudysLysGlu 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    224 AsuSerLeuGlyLeuValThrSerAsuGlyLeuProGluValGluAsuLeuGerLysArq 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               244 TyrgludlullefyrlæutysAsnlysAsptæuAspAlaArqtæuPhetæuAspHisAsp 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78 ¥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                123
                                                                                                                                                                                                                                                                                                                                                                        \$4\_LeuPheSertgoLeuGlaArtThrO_FsGlaLeuTleuThrG]nProserSerSer 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              547 ATAICTACTGAAATAAATICTGCATIGGTGCTAAAAGTTTCTTGGATCACATTTTATTA 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              607 GCTAAAGGGGAAGTATTACAAATGGAAGATGATGTGGTGATTTCATTTCAGTTAATGCTA 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        787 GCACGGATAGCAAAACAACTAGAAAATGATACAASAATTATTGAAGTTCTCTGTAAAGAA 846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      847 CATGAATGTAATATAGATGAGGTGAAAAATGTTTGAAAAATTTTATAG 906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       44 GlnLysAsnileGluIleSerValHisLysPhePheAsnLeuLysGluIleAspThr 63
                                                                                                                                                                                                                                                                                                                                                                                                                                          64 SerThriysValAspAsnAlaMetSerArgiculzutystysTyrAspValizuPheAla 83
                                                                                             -----Val AspLeuAspGluMet SerPheThr PheThr GluLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           294 HisGladyaAonileAspdlaValLysAanValTyrHact,sAanfact. FracheMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             264 LysThrLeuGlnThrAspSerTleAspSerFheGlaffirsluArqThrProArqLysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                284 AsnLeuAspGluGluValAsnVallleProProHisThrFroValAraThrValMetAsn
```

2 3 3 3 4 5 7	40 14 15 15 46 7	1 ~ 12 10 4 10 1		603 2046 . 623 2106 643 2166	9 7 80 7 6
ClecutysArsVa HILLIHIHHHHHHH TATOTHCLYCYSVa HHHHHHHHHHH GACAGGTHGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG	LLYSLEUGEUASGASPASD HHHHHHHHHHHHH AAGGCAAC HHHHHHHHHHHHHHH CCCAIGGATTCTGAATGCAAGA  EPTOTTPILELEUASDVA  CCCAIGGATTCTGAATGTG  TPhelleLysAlaGLUGLY  THHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	SATGITOMOTGIUSC TITLITITITITITITITITITITITITITITITITITI	**************************************	Unlead   U	WALGINGLUTHERP HITTHHITHHITHHIT PRETYLASISCEVA HITTHHITHHITHHITHHITHHITHHITHHITHHITHHI
### ##################################	udiaArgleuserTlediaAsnPheserLy IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	AGACC AGAC AC AGAC AGAC AGAC AC AGAC AGAC AGAC AC AC AC AC AC AC AC AC AC AC AGAC AC AC AC AC AC AC AC AC AC AC AC AC A	CONTROVA!ANGSCEPTOL.	JucateuserGludish HILLHILLIIIIIII XIICHSPERMANANN IGHANGLATYRGIALE HILLHILLIIIIIIIIIIIIIIIIIIIIIIIIIIIII	LiysasticuProfitsal 
SerTyrPheAc 	LettysSerGladiaGladarat.	stiteuthrangdhun Wittgacaacaacaa Wittgacaacaacaa Wittgacaacaacaa Wittellillillillillillillillillillillillilli		Arqueuasn Priteucysciaarg 111111111111111111111111111111111111	Lyst Litt: AAAA Vatt. Hill Gitti Gitti
344 344 364 364 364		64 87 87 47	24 44 67 57	8 8 6 4 7 9 6 4 7 9	+ / + / +
6	5 6 5 6 5 6 6 6	\$ £ 5 £ 5 £	5 8 5 8 5 8	8 4 5 E 8 8	5 4 5 6 5

```
TITLE OF INVENTION: Process for Identifying Anti-Cancer Therapeutic Agents Using C FILE OF INVENTION: Gene Sets FILE REFERENCE: 689290-77 COMMENT AFFLICE REFERENCE: 689290-77 COMMENT AFFLICATION NUMBER: 08/09/954,531
                                                                                                                                                                                                                                                                                                                                                                                                                        2527 ACTICIGENTE PER PROPERTY AND STANDARD SERVICES ACTICIONES SERVICES ACTICION SERVICES SER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2707 CIGGGARANA GACHILI HILLIH HILLIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   784 ArgSerAlaGluGlySerAssProProLysProLeuLysLysLeuArgPhcAspIleGlu 803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               824 JouAlaGluMetThrSerThrArgThrArgMetGlnIysGlnIysMetAsnAspSerMet 843
                                                                                                                                                                                  744 ThrProThrLysMetThrProArqSerArqIleLeuValSerIleGlySLaSerPhecily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       764 ThrSorGluLysPheGlnLysIleAsnGlnMetValCysAsnSerAspArgValLenLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4839
851
0
0
77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRICH AUDITATION NUMBER 182760/234,034 PRICH FILING DATE: 2000-09-20 PRICH FULLAND NUMBER: 0500/234,509 PRICH FILING DATE: 2000-09-22 PRICH FILING DATE: 2000-09-22 PRICH APPLICATION NUMBER: 05,60/234,567 PRICH FILING DATE: 2000-09-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13, 65,133,133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FE, 234,009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2767 GATACCTCAAACAAGGAAGAGAAA 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 143, Application US/09954531
Patent No. US20020165180A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        844 AspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002-05-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR ADDITION NUMBER 13,70
PRIOR FILING DATE: 2000-09-18
FRICE ARETANION NUMBER 18,70
PRIOR FILING DATE: 2000-09-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4333.50
91.708
91.708
98.898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT PILING DATE: 200 PRICE APPLICATION NUMBER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SECTIONOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT, Weaver,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 4839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ 1D NO 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYFE, DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
```

(1-4839) (1-4548-4544-34 (1-851) x (18-68-454-531-143 (1-4839)

:= a	- 8	Met Probrotysthi PerArddysthi AlaAlathi AlaAlaAlaAlaAlaAlaAlaAlaGluPro-20 TRITHI HILLIH Alaktaran AAAAAA HOOMAGO Accordoodhoodhoodhoodhoodhoodhoodhoodhoodho	0 67
;×.	7.1	ProAlaProProProProProProProProGlu	0
تد	1.58	PELLETTETTETTETTETTETTETTETTTETTTETTTTTTT	57
:×-	\$	08 30	0
تہ	81.7	GAPT GOOT OF POSTCAGGOTT GAGTITI GAAGAAAAAAAAAAAAAAACC GATTI ITACII GOAITA - 3 LO	17
>-	7	08 30	0
ت	÷ H	TOLCANAAALIAAANALACTAGALCALGICAGAGAGAGAGTITGGITAACTIGGGAGAAA 377	77
>-	9	08	0
شد	478	GTTTCAFCTGTGGALIGGAGTTGGAAAATTCAAAAGAAAAAAAAAACTGTGGGGGA 437	37
:	<del>-</del>	· · · · · · · · ValAspLeuAspG) uMet Ser Pherhr Pherhr Clui.cu 43	~
ند	4 48	AFCTGTATCTTTATTGCAGCAGTGTTGTTTTTTTTTTTTT	4
:- ±	4 4 4 2	GlubysAsnfle() u1] eSorValHisLySPhePh-AsnLeule HysGlufleAspThr	3
	÷	TANANANAN ATANANAN MUNTU ATANATIK TITTAN TITAK TANANGANAT TONTAKU. 33	_
شہ:	6.4 8.00	SerThriy3ValAspAsnAlaMetSerArdLeuLeuLySLysTyrAspValLeuPheAla 83 	3
254	84	LeuthesertysteutluargthréyschiletyrkeuthröhnproserSerSer 10°	03
ے	€18	CTCTTCAGCAAATGGAAAGGA:ATGTGAACTTATATTTTGACACAAGGCAGTTCG 677	17
:s = ±	104 678	104   HesserThistolleAsisseralaLeuValLeuLysValSerTrpHeThirPheLeuLeu   123 	123
	1.24	Alatystiyoti uValteeroti nMet GibuaspaspiseuVali i teserpheoti nLeumet Leu 14	8 1
<u></u>	ž ;	GCTAAAGGGAAATTACAAATGGAAGATGTGGTGATTTCALTTCAGTAATGCTA 79	43
:- <u>.</u>	7.5H	Cysvallemasplyfbellelyslænserptoprometlænlænlysglupfolyflys 16 	63
18 2	40 H	Throbaval Defroite Associates by SerProArgThrProArgArgStyClnAsnArgSer 187	83
	2 -	A MATTER LATE AND TO THE ANALYSIS OF THE ANALY	- :
شد ۔:	, 184 814	ATAMATAN MATANASAN MATANAS	7.7
	707	Historysasstrasplatalysasuvaltysasuvaltyrihetysasuvelietrophemet. 22	£
ے	9/6	CALGAATGIAATATAGAGAGAGAAAAAAGGTTTATTGAAAAATTTTATAGGTTTTATAG 10	037
) ».	777	AsnSerLeadlyLeuValThrSerAsnClyLeuProGluValGluAsnLeuSerLySArq 24	£ 4
ے	10 38	AATTOTTOGACTIGTAACATOTAATGGACTICCAGAGCTTGAAAATGTTGTAAAGGA T0%	260
× .a	244 1098	TyrchuchatietyrLeatysAstLysAspLeaAspAlaArgLeaFheLeaAspHisAsp 267 	63 157
<i>&gt;</i>	26.4	LysthriouCluthrAspSerTleAspSerPheCluthrClnArgThrProArgLysSer 28	83
ے	1158	AAAACTCTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAACACGGAAAAAGT 12	217

Š	284	AsnLeuAspGluGluValAsnVallleProProffisTtaProValArdThrValMetAsn 	¥ 0 ¥
<u>a</u>	1218	AACCTTGATGAAGAGGTGAATGTAATTGCTGGACACACTCGAGTTAGGACTGTTATGAAC	1277
Oy Db	304	Thr LeginGinleuMetMetileleuAsnSeralaSeraspGinfroserGluasnLeu 	324
Oy Db	13.38	TeSerTyrPheAsnAshCysThrValAsnProtysGluserTleLoutysArqValLys 	343
ک <sub>ا</sub> و	344 1348	ASPITECTYTITTEPHELYSCTULYSPHEATALYSALAVAIGTYCTHGTYTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	161
δο å	364	HellySerClnArgTyrt.ysLeuGlyValArqLeuTyrTyrArqValMetGluSerMet	*8*
g Å	384	ALTOGATICACAGG VATAN AAACLTGGAAGTIGGG TIGTATIAC CGAGTAA LGGAATCCATG LeutysSerGludfudfuargteuSerTFGTnAShPheSerTysteoteuAshAspasn [HTHTHFHHTHHHTHHHHHHHHHHHHHHHHHHHHHHHHH	151/
9 5	404	CTTAAATGAGAAGAAGAATGATTAGGATTTTAGGAAGTTGTGAATGAGAAGTTTTAGGAAGAA	424
	1578 424 1638	528 AFTTFFFGATATGFGFFTATGGGGGGGGGGTGTFGAAGGFTGTAAFAAAAAA 16.4 424 SetthrsetGliasnicuaspsctGtythraspicuserPhetrotrelleleuasnval 44.4 518 AGTACATGTGAAATGTGAAAATGTGAAAAAAAAAAAAAA	16.47 44.4
oy ob	444	Lebashikou ysala Picaspihetyriysva i Hechuser Picate Herysaladiodiy   HTH HTH HTH HTH HTH HTH HTH HTH HTH HT	46.5
da Ob	464	Ashleuthracgglumettlelyshisteugluargcysgluhisarglemetgluser HTILLITHTHTHTHTHTHTHTHTHTHTHTHTHTHTH Actitcaabgaaangataabacatthagaacatgaaratgaaratgaar	484 1817
oy ob	484	Leualatrpteuseraspserproteupheaspteurtetyschusertysasparachu 	503
Oy Db	504	CLYPTOThrAspHistorolluSerAlaPysProtousasmouProtousChAsbAshHis [[H]H]H]H]H]H]H]H]H]H]H]H]H]H]H]H]H]H]H	523
Q Q	524	Thralaalaaspuot TyrlouSeefroVallaaseefrotys Lystystystys errinthii 	54.4
oy Db	544 1998	Argva IAsin Ser Thr A la Asin A la dia thrich a la thriber of the latter	56.4
Oy Dp	564 2058	Professive Section Section Section Brightness of Section 1997 and considerate the section of the	583
ò a	584	AraLeuAsnThrLeuCystiluAraLeuLeuSerGluffisProGlutzeuGluffis Heffle EGGCTAAATACACHHGTGAACGGCHCGGAGGACAGAAHAGAAGATCAFC	6.03
QY Db	604 2178	Trp1bricaphedinHisibricadidasndiniyrdinicumetaraaspataHisicaliciiliiii 	6.23 2237
Oy Db	624 2238	ASPGIBLICMETMETCYSSERMETTYTCTYTHOCYSTYSVALLYBRABLIC ASPLANTYS INTERPRETATION OF ASPLANTANA GACCAAATTCATCATCATCATATCCAAATTCAACAAATTAAAATTTAAAATTTAAAATTTAAAATTTAAAATTTAAAA	643
ò	644	PheLys11e11eValThrAlaTyrLysAspLeuProHisAlaVaiGluGluThrPheLys	. 99

```
704 ProlleProHisileProArdSerProTyrLysPheProSerSerProLeuArgllePro 723 (1994) (1994) (1994) (1994) (1994) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995)
22.00 TTVAAAATCATEGTAAVAGATAGAAGAACATGEGTGATGGTGTTGATGTTGAAA 2357
                                                                                                                                                                                                                          25/8/03GAGGGAACATCTATTTTCACCCCGGAAGAGTCCATATAAAATTTCAGAGGTCGCA 2597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2.458 GGIGIIIIGAECAAAGAAGAAGATATAAITTTATTATATATTTATAAATTTTG 2417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5538 ACAGCAADAAAAAIGACICCAAGAICAAGAATCTTAGTATTCAAITGGIGAATCATTCGG 2657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28.48 DIGGCAGAAATGACTTCTACTGGAACACGAAFGCAAAAGGAAAATGAAAGGAAATGAFGAGATG 2897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2558 ACTICIGASAAGTICCAGAAAATAAATCAASAIGITATGIAACAGGGGGGGGGTGTGGTGAAA 2717
                                                                                                                                                                                                                                                                                                                                                                                                                             724 31y5tyAssilletyrilleSerProLeutysSerProTyrtysIleSerOluGlyLeuPro 743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          664 ArdValleufletysGluGluGluTyrAspScrileIleValPheTyrAsnSerValPhe 683
                                                                                                                                                                                               684 Met Glavia LysThrasnile Leuglaiyrala Set Thrata ProProThileuser 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           744 ThrProThrLysMeiThrProAigSeiArqIleLeuValSerIleSlyGluSerPhoxly 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           804 GlySerAspGluAlaAcpGlySerLycHisLeuProGlyGluSerLysPheGlnGluL,s 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      824 LeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILE OF INVENTION: Recombinant Adenoviral Vector and Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Townsend and Townsend and Crew LLP STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/328,673
FILING DATE: 15-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: USZOGZREO, 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPULER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 18-May 2007
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2898 GATACCTCAAACAAGGAAGAAAA 2921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANI: Gregory, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     844 AspthrScrAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Maneval, Daniel C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US OF 860 211.7
F September 7 Application US/09860211
F Patent No. 05200.013/21241
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CIIY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . MPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
ZIF: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SECTIENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KESULI 5
                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                 ŝ
```

```
379 CITTCATCTGTGGATGGAGTATTGGGAGGTTATATTCAAAAGGAAAAAGGAAACTGTGGGGA 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             159 GACÇISÇÇIÇIÇIÇAĞĞÇITEĞAĞTITIĞAAĞAARCAGAAĞAAĞCIĞALTITACIĞCALLA 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 104 IleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThrPheLeuLeu 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       44 ClarycAcalledlulleSerValHisLysPhePheAshieuLeurycolulleAspThr 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64 SerühttysValAspAsnAlaMetSerArgieuleulyslysTyrAspValleuthala 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2995
850
                                                                                                                                                                                                                                                                                                                                                                               /note- "retinoblastoma tumor suppressor"
SEQUENCE DESCRIPTION: SEQ ID NO: 7:
                                                                                                                       SHOCKOOF-OFESTO ABMININ LEM. ** 1/A. NEMEREM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-026-459A-39 (1-851) x US-09-860-211-7 (1-2995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21 ProAlaProProProProProProGlu------
                                                                                                                                                                                                                                                                                                                                                               /product- "RB"
APPLICATION NUMBER: US 08/142,669
FILING DATE, 25 CCT 1993
APPLICATION NUMBER: US 08/233,669
FILING DATE: 26-APR-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
                                                                                   NAMÉ: Smith, Timothy S.
REGISTRATION NUMBER: 35,367
                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                                                                      TELEPHOND: (415) 576-020 TELEPHOND: (415) 576-0300 INFORMATION FOR SEQ ID NO: 7: SEQUENCE CHARACIERISTICS:
                                                                                                                                                                                                                              LENGTH: 2995 base pairs
                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                              LOCATION: 139..2925
OTHER INFORMATION: /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4323.50
91.598
91.598
                                                                                                                                                                                                                                                                                 POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         38.668
                                                                                                                                                                                                                                                                                               MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                  NAME, 'KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity:
Quer, Match.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30 -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Porcent Similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                               FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                   JS-09-860-211-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30 ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        λο ··
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     습
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        =
```

```
2358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1759 AACTTGACAGGAGAATGATGATAAAACATTTAGAAGGATGTGAACATCGATGAATCC 1818
                                                                                                                                                                                  56.4
                                                                                                                                                                                                                                                                                                                                                                                                 2119 CGGCTAAATACACTTTGTGAAGGCCTTCTGTCTGAGCACCAGAATTAGAACATATCALC 2178
                                                                                                                                                                                                                                                                                                                                                                                                                                                2419 ATGCAGAGACTGAAAACAAATATTTGCAGTATGCTTCCCACCAGGCCCCCCTACCTTGTCA 2478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      583
                                                                                                                                                                                                                                                                                                                                                                    €03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   624 AspGInTleMetMetCysSerMetTyrGTyTLeCystysValtysAshTleAsptenLys 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     70 ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   704 ProlleProHislleProArgSerProTytLysPheProSerSerProLeuArgllePro 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      724 GlyGlyAsmileTyrileSerProLeuLydSerProTyrLysileSerGhalyLanpro 744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     824 LeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 843
                                                                                                                                                                                                                                                                                              524 ThrAlaAlaAspMetTyrLeuSerProValArgSerProLystystysstyserThrThr
                                                                                                                                                                                                                               544 ArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPhedlnIhrGlnLys
                                                                                                                                                                                                                                                    1999 | CGTGTAAATTCTACTGCAAATGCASASACACAASAASCOB AGGCTTGCAAA CCAGAAG
                                                                                                                                                                                                                                                                                                                                                                    ArgLeuAsnThrLeuCysGluArgLeuLeuserGluHisProGluLeuGluHislleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                    604 TrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArqHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    644 PheLysIleIleValThrAlaTyrLysAspLeuProHisAlaValGlnGluThrFheLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       664 ArqValLeuIleLysGluGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     744 ThrProThrLysMetThrProArgSerArglleLeuValSerlleGlyGluSerPheGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2599 ACACCAACAAAAATGACTCCAAGAICAAGAAICIIAGIAICAAIIGGIGAAICATICGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   764 ThrSerGluLysPheGlnLysIleAsnGlnMetValCysAsnSerAspArqValLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      784 ArgSerAlaGluGlySerAsaProProLysProLeabysLysLeuArgPheAspilleGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      804 GlySerAspGluAlaAspGlySerLysHisLeuDroGlyGluSerLysPDacThGlhLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2779 GGATCAGATGAAGCAGATGGAAGTAAACATCTCCCAGGAGAGTCCAAAATTTCAGCAGAAA
                                                                                               504 ClyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGlnAsnAsnHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2359 CGTGTTTGATCAAAGAAGAGGAGTATGATTCTATTATAGTATTCTATAACTCGGTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   684 MetGlnArglæulysThrAsnileLeuGlnTyrAlaSerThrArgProProThrLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                              \overset{\sim}{\circ}
                                                                                                                                                                ô
                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
```

```
Henedict, William F.
Zhou, Yunli
IIIIE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21 ProAlaProProProProProProdlu-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER, IRM FC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWAPF: PatentIn Pelease #1 0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3554
849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .26 459A+49 (1-851) x US-09-469-522-50 (1-3554)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
                                                                                                                                                                                                                                                                      NUMBER OF SEMPENPER 1
CHRESPONDENCE ADDRESS:
ADDRESSEE: ATHOUG, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FURRENT APPLICATION DATA:
PAPPLICATION NUMBER: USZN9Z469, 522
FILLING DATE: 22-DEC-1999
CLASSIFICATION - "Hobrows"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/INSCRET NUMBER OFFICESOR TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SEQUENCE DESCRIPTION: SEQ 1D NO+ 50; | 08+069-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 092026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 41,071
                       2899 GATACCTCAAACAAGGAAGAAA 2922
                                                                                    08-09-469-522-50
- Sequence 50, Application 08/09469522
- Entent No. 0820020151461A1
- GENERAL INFORMATION:
844 AspthrSerAsnLyscluCluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 512/418-3000
TELEFAX: 512/474 7577
INFORMATION FOR SEQ ID NO: 50:
SEQUENCE CHARACTERASTICS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGIH: 3554 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: «Unknown»
AFTOPNEY ZACENT INFORMATION*
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                  SIREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                    * MPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4323.50
91.598
91.498
98.668
                                                                                                                                                                                     Hu, Shi-Xue
                                                                                                                                                                APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10POLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
Z1P: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                   CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fercent Similarity:
Best Local Similarity:
Overy Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Allument Scores:
                                                                       RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
```

ΟŊ	3.0		~
qq	127	GACCIGCICICGICAGGCTIGAGTIIGAAGAAACAGAAGAACCIGATITTACIGCATTA	¥.
ζý	3.0		\$0
QC	187	TGTCAGAAATTAAAAGATAQQAGATCATGAGAGAGAGAGAGTTIGGTTAAGTTGGGAGAA	246
ζλ	3.0		Ę
qq	247	GTTTCATCTGTGGATGGATATTGGGAGGTTATATTCAAAASAAAAAGGAACTGTGGGGG	406
ÓΥ	3.1		4.
qa	307	APCTGTATCTTTATTGCAGCAGTGACCTAGGTGATATGTGGTTCACTTTACTGGTGAGCTA	366
ä j	₹* [	ShriysAsalleSlalleSerValHisLysFhePheAsaLeaLeaLysSlalleAspThr	<b>*</b>
<u>.</u>	367	CAGAAAAAGATAGAAA IGAGTGTGGATAAATTGTTTAAGTTAGTAAAAAGAAATTGATAGC	426
ර සි	64	SerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspValLeuPheAla 	~ 8 8 ~
δλ	8	.coupheSert.ys.leuGtuArgThrCysGluLeu(telyrt.eafht.GluBroserSerSer	103
वृत	487		546
o	104	104 11eSerThrotalloAsnSerAlaLeaValLeuDysValSerTrpIleThreTheLeuLeu	57
<u>.</u>	7 7 7	ATATETANDAAATAAATETGEATTGETGETAAAAGTTETTGAGALCACATTETTATTA	903
7 8	4.14 6.07	######################################	4 4 4 4
ä	144	CysValLeuAspTyrPhelletySteuSerProProMetLauLeutysCtuPtoTyttys	163
qq	667	HILLIHILIHILIHILIHILIHILIHILIHILIHILIHI	976
c,	164	ThrAlaValIleProlleAsaGlySerProArgThrProArgArgGlyGlaAsaArgSer	8.
Dţ,	727	ATAGCIGITALADCATTAATGGTTCACTTTTTAATACCAGAGGGCCAGAAGAGGGG	786
οy	184	AlaArg1leAlaLysGlpLeuGluAsnAspThrArg1le1leGluValLeuCysLysGlu	203
33	787	GCACGGATAGCAAAAAAATGATACAAGAAAATTAFTGAAGTTCTCTGTAAAGAA	8 4 6
<i>io d</i>	204	HisGluGysAssiloAspGluVallysAssValTyrPhelysAssibheltePhothect	223
g :	x 6	CAUGAALGIAALAIAGAFAAGAGAAAAAAGATTATATAGAAAAATTITATAGGATTITATG	9 5
S 43	400	ASTINATEDRITTY (A.M.) 11 SENTANTA (M.) (M.) (M.) (M.) (M.) (M.) (M.) (M.)	24.4 2.4.4 2.4.4
Ċ	1 1 1	TyrGluSlatteTyrLealiysAsaLsaAsaLaNarAlaAraLeabelealiysAsa	)
q <sub>C</sub>	967		1026
3c	564	LysThi LouGlathi AspSci HeAspSci FluGTuthi GlaArgThrProArglysScr	283
ηq	1027	PHTHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	1086
QΫ	284	AsnLeuAspGluGluValAsnVallleProProHisThrProValArqThrValMetAsu	363
Оb	1087	AACCITGATGAAGAGGGAATGTAATTCCTCCACACACTCCAGTTAGGACTGTTATGAAC	1146
à t	304	ThrileGinGlnLeuMetMetJleLeuAsnSerAlaSerAspGlnProSerGluAsnLeu	3.23
1 1	1147	ACTATCCAACAATTAATGATTTTAAATTCAGGAAGTGAAGGTTGAGAAAAATTG	1206
ΟŸ	324	HeSerTyrPheAsnAsnCysThrValAsnProLysGluSerHeLeuLysArgValLys	343

Tue Jan 21 10:03:39 2003

	1506 443 1566 463 1626 1686	503 1746 523 1806 543 1926 1926		663 2226 683 22286 703
			TO STATE OF THE ST	4 PhetystlefleValThrAlaTyrLysAspLeuProHisAlaValGlusluThrPhetys [Hillillillillillillillillillillillillill
1267 1267 1267 1644 1647 1647	404 1447 424 1507 444 1557 1557 1527	1687 504 1747 524 1807 544 544 564	1927 5884 1987 604 2047 2107	644 2163 664 2227 684
9 5 9 5 9 5 9	5 9 5 9 5 9 5 9	5 2 5 2 5 2 5 2 5	3 8 3 8 3 8 3 8	5 4 5 3 5

```
724 GJyClyash Hefyr Reservolesiyssə erstyriysi karatasıyla sittə 743 Hilli Hil
                                                                             2287 ATGCAGAGACTGAAAAQAATALTIGCAGTATGCTICCACTAGGCCCTTACCTIGTCA 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2647 GGATCAGATGAAGCAGATGGAAGTAAACATCTCCCAGGAGAGTGCGAAATTTCAGCAGAAA 2706
                                                                                                                                                                                                                                                                                                                                                                                                                     744 ThrProThrLysMetThrProArqSerArqIleLeuValSerIleGlyGluSerPhedly 764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     764 ThrSerGluLysPheclnLysIleAsnGlnMetValCysAsnSerAspArqValLanLys 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                804 GlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSerLysFheGluGlnLys 824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION; MODIFIED RELINORLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICAL CAN NOMBER: US, 18, 169, 54, 2 PILLING DATE: 22-Dec-1999
CLASSIFICATION: SURKNOWN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IHM PC compatible
OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Benedict, William F.
Zbou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2767 GATACCTCAAACAAGGAAGAAA 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                · 844 AspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 34, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Hong-Ji
Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. US20020151461Al GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US 09 469 522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 7
                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ć
```

```
91 throyscintentletyricuthrolmProSerSerSerTleSerThrGlutleAsnSer 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [94] STOASSPTHIARGITEITESTOVALLEWCYSLYSGIUHISGIUCYSAGNITEASPGIU 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.1. VallysAsnVallyr fletysAshPhetherroPheMetAshSericeGlyiceuValThr 230 [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 AATAAAGATCTAGATGCAAGATTATTTTTGGATGATAAAAACTCTTCAGACTGATTTT 759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160 AIGTCAAGACTGTIGAAGAAGTATGATGTATTGTTTGCACTCTTCAGCAAATTGGAAAGG 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 228 ACATGIGAACITATATATATGACAACCAASCAGIIGGAIAICIACIGAAAIAAATICI 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  111 AlaLeuValLeuLysValSerTrpIleThrPheLeuLeuAlaLysGlyGluValLeuGln 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                131 MetulluAspAspLeuVallleSerPheGlaLeuMetLeuCysValLeuAspTyrPheIle 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171 01ySerProArgThrFroArgArgGlyGlnAsnArgSerAlaArgIleAlaLysGlnLeu 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    * 1 V TCTAATGGAGTTGCAGAGGTTGAAAATGTTTCTAAAGGATAGGAAGAATTTATCTTAAA 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               271 HeAspSerPheGluthrGlnArgThrProArgLysSerAsnLeuAspGluGluValAsn 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3) ValAspleuAspGluMetSerPhelhrPheThrGluLeuGlnIysAsn11eGluIleSer 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51 ValHisLysPhePheAsnLeuLysGluIleAspThrSetThrLysValAspAsnAla 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71 MetSerAraLeaLeaLysLysTyrAspValLeuPheAlaLeaFheSerLysLeuGluArq 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25. AsuLysAspLeuAspAlaAraLeuPheLeuAspHisAspLysThrLeuGlnThrAspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3266
821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                026 459A-39 (1-851) x US-09-469-522-34 (1-3266)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             indels.
                                                                                                                                                                                                                                                                                                                        SPOURNA'S DESCRIPTION: SPO II NO: 34:
                                      LENGIH: 4266 base pairs
                                                                        JYPE: nucleic acid
SIKANDEDNESS: single
SEQUIPING CHARACTERISTICS.
                                                                                                                                                                                                                                                                                 7..2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.00%
100.00%
96.23%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4217.00
                                                                                                                                                              HOPOLOGY: Linear
                                                                                                                                                                                                                                      NAME/KEY: ODS
                                                                                                                                                                                                                                                                                 LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hest Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Aliqument Scores:
                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                                  S-09 469 522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             owery Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          î
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ę,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         :<u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ÷
```

```
1060 CTTGGAGTTCGCTTGTATTACGGAGTAATGGAATCCATGCTTAAATCAGAAGAAGAACGA 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1540 TOTGOTICHAAGATGTGGAAAGAAAGGTTGAAGTACGGGGGGTGTAAAITGTACIGGAAAI 1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1840 ATGTATGGGATATGGAAAGTGAAGAATATAGACCTTAAATLGAAAATCATTGLAACAGCA 1899
                                                                                                                                                                                                                                                                           311 HeleuAsnScrAlaSerAspGlnProSerGluAsni,euHeSerTyrPheAsnAsnCys 330
                                                                                      411 AlaCysAlaLeuGluValValMetAlaThrTyrSerArqSerThrSerClnAsnLeuAsp 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    451 PhcTyrtysValilcGluSerPhcIleLysAlaGluGlyAsmLeuThrArgGluMetfile 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        471 LysHisLeuGluArgCysGluHisArgIleMetGluSerLeuAlaTrpLeuSerAspSer 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         491 ProLeuPheAspleulleLysGInSerLysAspargGluGlyProThrAspHisLeuGlu 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         511 SerAlaCysProLeuAsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMetlyrLeu 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          531 SerProValArqSerProLysLysLysGlySerThrThrArqValAsaSerThrAlaAsn 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       651 TyrLysAspLeuProHisAlaValGlnGluThrPheLysArgValLeuIleLysGluGlu 670
291 ValileProProHisThrProValArgThrValMetAssThrileGlnGlnLenMetMet 310
                                                                                                                                                                                                       331 ThrvalasnProtysCluSerlleLcutysArgVallysAspIleGlyTyrllePhetys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   431 SerGlyThrAspLeuSerPheProTrpHeLeuAsnValLeuAsnLeuIysAlaPheAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240 TCTGGAACAGATTGCTTTCCCATGGATTCTGAATGTGATTTAAAAGCCTTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AlaGluThrClnAlaThrSerAlaPheClnThrClnLysProLeutysSerThrSerLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   591 ArgLeuLeuSerGluHisProGluLeuGluHisIleIleTrpThrLeuPheGlnHisThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      611 LeuGlnAsnGluTyrGluLeuMetArgAspArgHisLeuAspGln!leMetMetCysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                      5
                                                                                                                                                                                                                                                                           \ddot{o}
                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
```

```
POOT INCIDENTIAL PROPERTY OF THE PROPERTY OF T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2140 CCCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTGCCAACAACAAAAATGACTCCA 2199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1960 GAGIALGALFOTALTALAGTATTCTATAACTCGGTCTTCATGCAGAGACTGAAAAAAA 2019
                                                                                                                                    671 GlufyrAspSerifelleValPbelyrAsnSerValPheMetGluArgLeuLysThrAsn 690
                                                                                                                                                                                                                                                                                                                    691 The Long IntyrAla SorthrAngroProThrLeu SerproII oproglis II oproArg 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              711 SerProTyrLysPhoProSerSerProLeuArgIleProGlyGlyAs::HeTyrfleSer 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7.41 Protect/98SerProtyrt/9811eSerGluGlytouProthriyaMetThrPro 750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         751 ArqSerArqIleLeuValSerIleGlyGluSerPheGlyThrSerGluLySPheGlnLys 770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721 II+AsuGluMetValCysAsuSerAspArqValLeutysArgSerAlaCluGlySerAsn 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 791 ProbroLysProLenLysLysLenArqPheAspIleGluGlySetAspGluAlaAspGly 810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            811 SerLysHisLeakroGlyGluSerLysPheGlnGlnLysLeuAlaGluMet.ThrSerThr 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           H31 ArgThrArgMetGlnLysGlnLysMetAsnAspSerMetAspThrSerAsnLysGluGlu 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Renedict, William F.
Zhou, Yunti
1111E OF INVENTION: MODIFIED RELINDBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                        SOFTWARE: Patentin Release #1 0, Version #1,40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Arnold, White & Durkee
STREEL: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/09/469,522
FILLING DATE: 22 Doc-1999
CLASSIFICATION: OBSKNOWN .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IHM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 32, Application US/99469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 77210-4444
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Xu, Hong Ji
Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         77210 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fatent No. USZUDZBISTAGIAL SENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CILY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002 AAA 2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           851 Lys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT B
                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
```

```
131 MetGluAspAspLeuVallleSerPheGluLeuMetLeuCysValLeuAspHytPhelle 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [5] LysLeuSerProProMetLeuLysGluProTyrLysThrAlaValileFroIleAsn 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   171 GlyserProArgThrProArgArgGlyGlnAshArgSerAlaArg1TeAlaLysGlnLeu 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            191 GluAshAsplbrArqIletleGluValLeuCystysGluHisGinCysAsh:TeAspGlu 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   577 GAAAATGATACAAGAATTATTGAAGTTCTGTGTAAAGAACATGAATGTAAGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            231 SerAsnClyteuProGlaValGluAsnLeuSerLysArqTyrGluGluffelyrLeutys 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       51 ValHisLySPhePheAsnLeuLeuLySGlulleAspThrSerThrLysValAspAsnAld 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71 MetSerArgLeuLeuLysLysLysTyrAspValLeuPheAlaLeuPheSerLysLeuGluArg 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              277 ACATGTGAACTTATATATITGACAGAACCCAGCAGTTCGATALCTACTGAAATAATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 111 AlaLeuValLeuLysValSerTrpHFFFFFFFeteuLeuAlaLysely61uValLeuGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-026-459A-39 (1-851) x US 09 469 522-32 (1 3323)
                                                                                                                                                                                                                                                                                                                         Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                              Matches:
                                                                                                                                                                                                                                                                                             Letnath:
                                                                                                                                                                                                                                                                                                                                                        Indels:
                                                                                                                                                                                                                      LOCATION: 7.,2559
SEQUENCE DESCRIPTION: SEQ ID NO: 42:
                                                                                                                                                                                                                                                                                                                                                                        Gaps:
                           REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: 013
                                                         TELECOMMUNICATION INFORMATION:
                                                                       TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                SEQUENCE CHARACTERISTICS:
LENGIH: 322 base pairs
ATTORNEY/AGENT INFORMATION:
                NAME: Hibler, David W.
                                                                                                                                              TYFE, now lett, acid
STRANDEDNESS: single
                                                                                                  INFORMATION FOR SEQ ID No: 42:
                                                                                                                                                                                                                                                                                                        4217.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                       96.248
                                                                                                                                                                           TOPOLOGY: linear
                                                                                                                                                                                                          CDS
                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                         Best Local Similarity:
                                                                                                                                                                                                                                                                                                                         Percent Similarity:
                                                                                                                                                                                                                                                                              Aliqument Scores:
                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                  US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                        Query Match:
                                                                                                                                                                                                                                                                                               Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oy.
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DP
DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
```

100 4 + 6 Ç -4,16 Ç.₹

THEUGHNIMASPSET 2: TETTCARACTGATTCT 8 THEITHIHITHIHITHIHIHIHIHIHIHIHIHIHIHIHIH	TTARLANCISC 99, TTARLANCISC 99, TT I CPRCITTAL 10, TARLANCISC 99, TT I I I I I I I I I I I I I I I I I I			ThrArqValAsnSerThrAlaAsn 5 HIHIHHHHHHHHHHHH ACGCIGIAAAT TCTACIGCAAAT 1 LySPTOLOULYSSCTThr Seriou 5 HIHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
Astrysaspicuaspalaargicui Aaraaastradariscaarattii Hoaspserpheclurhriinardi Hillillillillillillillilli Alacarattiricaaacaagaca Valtterillillillillillilli Glaaficticcacacacactafillillillilli Glaaficticcacacacactafillillillillillillillillillillillillill	c − − 0	Leuser HILLI TIAICO Alacys Alacys Geglec Serdly HILLI TOTGGA	Pricing 111111 1111111 AAACA1 Proten 111111 COTTA	FPEOVAL FFFEITAL FFFEITAL FFFEITAL GEORGE FFFEITAL FFFFEITAL FFFEITAL FFFEITAL FFFEITAL FFFEITAL FFFEITAL FFFEITAL FFFFEITAL FFFEITAL FFFEITAL FFFFEITAL FFFEITAL FFFFEITAL FFFFEITAL F
		331 1127 1247 431 431 431	2 4 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	541 561 1667 571 1717 591
5 8 5 8 5 8 5 8	3 5 6 5 6 5 6	\$ f f f f f	8 8 9 8 9 8 8 8	3 8 5 8 5 8 5 8

```
2197 CCCCIGAAGAGCCAIAIAAAAIIICAGAAGAGCIGGCCAACACAACAAAAAAIGACCCA 2286
                                                                                                                                                                                                                                                                                                                                                                                             2257 AGATCAAGAATCTTAGTATCAATTGGTGAATCATTCGGGACTTCTGAGAAGTTCCAGAAA 2316
                                                                                                                                                                                                                                                                                                                                                                                                                                             691 IleLeuGlnTyrAlaSerThrArgProProThrLeuSerProIleProHisTleProAra 710
                                                                                                                                                                                                                                                                                                                                                                           751 ArqSerArqIleLeuValSerIleGlyGluSerPheGlyThrSerGluLysPheGlnLys 770
                                                                                                                                                              671 GluTyrAspSerifelleValPheTyrAsnSerValPheMetGlnArgLeuLysThrAsn 590
                                                                                                                                                                                                                                                                                                                         731 ProbentysSerProTyrLysIleSerCluClyLeaProThrProThrLysMetThrPro 750
                                                                                                                                                                                                                                                                                                                                                                                                                                 771 IleAsnGlnMetValCysAsnSerAspArqValLeuLycArqSerAlaGluGlySerAsn 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         811 SerLysHisLeuProGlyGluSerLysPheGlnGlnLysLeuAlaGluMetThrSerThr 830
                                                                                                        651 TyrLysAspLeuProHicAlaValGinGluThrPheLycArqValLeuIleLysGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: MODIFIED RETINORIASTOMA TOMOR SUPPRESSOR PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Benedict, William F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 30, Application US/09469522; Patent No. US20020151461Al; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READALLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Arnold, Whi
STREET: P.O. Box 4433
CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Houg-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2557 AAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                851 Lys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                   g
                                                                                                                                                              Οy
                                                                                                                                                                                      g
                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                        ã
                                                                                                                                                                                                                                                                                                                                                   合
                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
```

```
91 ThreyschuleufleTyrLeuThrGlnProSerSerSerIleSerThrGlulleAsnSer 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  111 AlakeuValleenkysValSerTrplleThrPheLeuLeuAlakyGlyGluValLeuGln 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      131 MetGluAspAspLeuVallIeSerPheGInLeuMetLeuCysValLeuAspTyrPheIle 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            151 LystenSerProProMetLeuteuLysGluProTyrLysThrAlaValIleProIleAsn 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       171 GlySerProArdThrProArgArgClyClnAsnArgSerAlaArg11eAlaLysClnLeu 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      191 CluAshAspthu ArqueeleGluValleuCystysGluHisGluCysAshIleAspGlu 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       406 GCATTGGTGCTAAAAGTTTCTTGGATCACATTTTTATTAGCTAAAAGGGAAGTATTAAAA 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71 MetSerArgLeuLeuLysLysTyrAspValLeuPheAlaLeuPheSerLysLeuGluArg 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                51 ValHistysPhePheAsnLeuLeuLysGlulleAspThrSerThrLysValAspAsnAla 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41 ValAspLeuAspSluMetSerPheThrPheThrGluLeuGlnLysAsnIleGluIleSer
              OPERATING SYSTEM: POSTOSZMS-DOS
SOFTWARE: Patentin Release #1 0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US 09 026 459A 49 (1-851) x US-09-469-522-30 (1-3392)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative:
Mismatches:
                                                    CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                               REPERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION: 7..2628
SPECIFINE DESCRIPTION: SP2 ID NO: 30.
                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/026,459
FILING DATE: «INKLOWIN)
ATTORNEY APPLICATION PROPERTY.
COMPUTER: IHM PC compatible
                                                                                                                                                                                                                             REGISTRATION NUMBER: 41,071
                                                                                          FILING DATE: 22-Dec-1999
CLASSIFICATION: - Unknown.
                                                                                                                                                                                                                                                                    IELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                    TELEPHONE: 512/418:3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                          LENGTH: 3392 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                           NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4217.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96.238
                                                                                                                                                                                                                                                                                                                                                                                                                           ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 09 469 522 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
```

```
1306 GCGTGCGCTCTTGAGGTTGTAATGGCCACATATAGCAGAGTACATCTCAGAATCTTGAT 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       486 AAACATTTAGAACGATGTGAACATCGAATCATGGAATCCCTTGCATGCTTTTGATTCA 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .606 TCTGCTTGTCCTCTTAATCTTCCTCTCCAGAATAATCACACTGCAGAGATATGTGTTGTT 1665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u></u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    066 ACAGTGAATCCAAAAGAAAGTATACTGAAAAGAGTGAAGGATATAGGATACATCTTTAAA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1426 TITIACAAAGIGAICGAAAGIIITAICAAAGCAGAAAGCAACTIGAGAAAAAAATGATA 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .666 TCTCCTGTAAGATCTCCAAAGAAAAAGGTTCAACTAGGGGTGTAAATTCTACTGCAAAT 1725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    371 LeuGlyValArgLeuTyrTyrArgValMetGluSerMetLeuLysSerGluGluGluArg 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              411 AlaCysAlaLcuGluValValMctAlaThrTyrScrArgScrThrScrClnAsnLcuAsp 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 431 SerGlyThrAspLeuSerPheProTrp11eLeuAsnValleuAsnLeuLysAlaPheAsp 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    451 PheTyrLysValileGluSerPheileLysAladluGlyAsnLeuThrAradluMetile 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            511 SerAlaCysProLeuAsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeu 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          551 AlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLysProLeuLysSerThrSerLeu 570
                                                                         706 GTGAAAAATGTTTATTTCAAAAATTTTATACCTTTTATGAATTCTTGGACTTGTAACA 765
                                                                                                                                                                                                                                                                                                                         766 TCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATACGAAGAATT1ATGTAAA 825
646 GAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAAATGTAATATAGATGG 705
                                                                                                                                                                                                                                       231 ScrasnCytonProCvCVFICInash puScriysArqyyrCluGluJt () 14. ...(78 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       311 IleLeuAsnSerAlaSerAspGlnProSerGluAsnLeuIleSerTyrPheAsnAsnCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  331 ThrValAcnProCLysGluSerIleLeuLycAcaValLycAsyThetlycTyrThethet.ys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   886 ATAGACAGTITIGAAACACAGAGAACACGACGAAAAAAGTAACCITGATGAAGAGGTGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               471 LysHisLeuGluArgCysGluHisArglleMetGluSerLouAlaTrpLouSerAspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           531 SerProValArgSerProLysLysLysClySerThrThrArgValAsnSerThrAldAsn
                                                                                                                                                                                                                                                                                                                                                                                                      251 Asoty sAcrite AspAlaArq Leo Floria Hillaspity sThata utlata AspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             291 ValifleproproHisthrProValArqfhrValMetAsnThrifledIndenMetMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          271 IleAspSerPheGluThrGlnArqThrFroArqLysSerAshLeuAspGluGluValAsm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                          P
                                                                                                                                                                                                                                                                                                                                                                                                      Ĉ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뎚
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>q</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
```

```
2588 OBAACANGAATGCAAAAAGCAGAAAATGAATGGATGGCATGGATAGCTCAAACAAGGAAAAGG 2625
                                                                                                 2.286 A.Y. OTTAN'AARTHOTASHICACOTIAN'ARAHOTIQIASAAARAA'ARATAHA 2.265
                                                                                                                                                                                                                                                                           1966. ATGITATIGGGATATIGGAAAGTIGAAGAATATAGACCTTAAATTCAAAATCATTIGTAACAGCA. 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2266 CCCCLHANGGHOMAIAAAAFFINAGANGTCTGCCAACAACACAAAAAAFGACFICA 2325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2446 CCTCCTAAAQCACTGAAAAAACTACCTTTGATATTGAAGGATCAGATGAAGGAGGTGA
                                                                                                                                                                                                                                   691 IleLeuGloTyrAlaSerThrArgProProThrLeuSerProIleProHis1leProArg 710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23. Protest ysserProfyntysfleSerGlaGlyteaProfhæfetha (ysMctfhæfe 750)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     571 serteuPheTyrtystysValTyrArdLeuAlaTyrLeuArgLeuAsnThrLeuCysG1u 590
                                                                            591 ArqLeuLeuSerGluHisProGluLeuGluHisIlelleTrpIhrLeuPheGlnHisThr 510
                                                                                                                                                         511 LeuGlnAshGluTyrGluLeuMetArqAspArgHisLeuAspGlnHeMetCysSer 630
                                                                                                                                                                                                                                                                                                                691 TyrLysAspLeuProHisAlaValGlnGluThrPheLysArgValLeuIleLysGluGlu 670
                                                                                                                                                                                                                                                                                                                                                                                             6/1 StufyrAspSertielieValPheTyrAsnSerValPheMetGlnArgieutysThrAsn 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      711 SerProTyrLysPhoProSerSerProLeuArglleProGlyGlyAsnileTyrlleSer 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              850 ArgThrArdMetGluLysGlnLysMetAsnAspSerMetAspThrSerAsnLysGluGlu 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 28, Application 03/09469522
Patent No. 0820020191461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Xu, Houq-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pafest No. USZÓÖZƏJ514-
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2626 AAA 2628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               851 [YS 85]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 10
                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                  \hat{j}
                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
```

PROTEINS

NUMBER OF SECUENCES: 51

```
91 ThrCysGluLculleTyrLeuThrGlnProSerSerSerIleSerThrGlulleAsasSer 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3.1 AlakcuvalkoulysvalSerTrpflethreholoukouAlaksolyGluvalkoudin 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  469 GGATIGGIGGIAAAAGIIIGIIGGAIGACAIITIIAIIAGGIAAAAGGGAAGIAIIACAA 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            151 LysLeuSerProProMet LeuLeuLysGluProTyrLysThrAlaValIleProIleAsn 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         229 GTTGACCTAGATGAGATGTCGTTGACTTTTAGTGAGCTACAGAAAAACATAGAAATGAGT 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             289 GTCCAIAAATTGTTTAAGTTAGTAAAAGAAAITGAIAGGAGTACCAAAGTTGATAATGGT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51 ValHisLysPhePheAsnLeuLysGlulleAspThrSerThrLysValAspAsnAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31 ValAspLeuAspGluMetSerPheThrPheThrGluLeuGlnLysAsnIleGluIleSer
                                                                                                                                                                                                                                 SOFTWARE PatentIn Release #1 0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-026-459A-39 (1-851) x US-09-469-522-28 (1-3455)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Competrative:
Mismatches:
CORRESPONDENCE ADDRESS:
ADDRESSE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                        AFFLICATION NUMBER, USZÖZ469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <URKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels:
                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 7..2691
SEQUENCE DESCRIPTION: SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/026,459
FILING DATE: <Unknown>
AltoFNEY/AGFNI INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                            PEGISTRATION NUMBER 41 071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                   MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 3455 base pairs
                                         STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIRANDEDNESS: single
                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.00%
                                                                                                                         ZIP: 77210-4433
COMPUTER READARIE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4217.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96.23%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                           Houston
                                                                                                       COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY:
                                                                                   STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent similarity:
Best Local Similarity:
                                                             ر الله ،
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aliqnment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NO.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5.0
```

	283	TELLELLELLELLELLELLELLELLELLELLELLELLELL	
>	171	GLYSPTProArgThrProArgAstyGludsnArgSerAlaArg1leAlaLysGluLeu 190 	
·4 .5	1.9.1	191 GLUASDASPINAFOLDEGLUVALLOUVSSLYSGLUFISGLUGYSASGLUGASPOLU 210 HELLILLI HELLIH HELLIH HELLIH HELLIH HELLIH HELLIH HELLIH HELLIH HELLIH 209 GAAAATGALAANGAATTATTGAAGTTCTGTGAAGAACATGAAGTAATATAGATGAAGT 768	
S2	769	Vallysasnvaltyr PhelysasnphellePropheMetasnSerLeuGlykeuvalthr 230 1111   H.H.H.H.H.H.H.H.H.H.H.H.H.H.H.H.H.H.H	
> 2	1 + 7 1 + 7	Serasuctyteeproctuvalgtuaspiessetiysaryfyrgtigtudfefyrteutys 250 111111111111111111111111111111111111	
8 4	251	AshlysasplædaspalaarqlædpholædasplisasplystbrlædfirthraspSer 	
5- A	27.1	THEASTS OF THE HITTELLAND OF THE SECTASTICATED VALAS OF THE SECTION OF THE SECTIO	
م ح	291 1009	ValiteProprofisThrProValArgThrValMetAsnThrIteGinGlnLeuMetMet 	
ж а	411	HelemasuseralaseraspGinProserGluasniculleserTyrPheasnasnCys HILLILLEHILLHHILLHHILLHHILLHHILLHHILLHH	
ъ a	1129	PhiVaTAshiprotysGluserTleteutysArqVallysAspileGlyfyrtTePhetys 	
× .a	451 1189	GHEFSPIPANALAYSALOLYGINGLYGYSVALGLETIEGLYSERGINARTYREYS 	
S 4	371 1249	LeuglyvalargleufyrfyrargvalMetGluserMetLeubysserGluslushrg 	
S 2	140.9	Leußer HechnasubbesertystzeitenasnaspasinflebheltismetSerteuheu 1111   1	
> 2	411	AladysalatandluvalvalMetalaThrTyrSerArgSerThrSerGlnAsnLeuAsp 	
× 2	14.29	Set GLY Chraspleuser Phebrotrp HeleuasnValleuasnheulysalabbasp 	
ъ a	451	PhetyriysvallikglusorpholletysaladludlyasnikuthrargdluMetile 	
ے ≺	471	Lysti stendladrgcyschultsargti emetchusertenalatrpteuseraspser 	
. A	491 1609	ProtoupheasploutlotysGluSertysasparqGluGlyProThraspHislouGluCittlittellIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
>-	<u> </u>		

```
8717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2568
                                                                                                        1848
                                                                                                                                 1968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ### ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2088
                                                                                                                                                                                                                                                                                                                                                                      2089 TACAAGGATCTTCCTCATGCTGTTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAG 2148
                                                                                                                                                                                                                                                                                                                                                                                                                          2149 GAGTATGATFCTATTATAGATATTCTATAACTCGGTCTTCATGATGAGAGTGGAAAAAAGT 2208
919
                                                                                                                                                                                                                                          0+9
                                                                                                                                                                                                                                                                                            650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        731 ProtecutysSerProTyrLys HeserGluGlytzaProthrProthr LysMetThatro 750
                            550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       811 SerLysHisLeuProGlyGluSerLysPheGlnGlnLysLeuAlaGluMetThnSerThr 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         831 ArgThrArgMetGlnLysGlnLysMetAsnAspSerMetAspThrSerAshLysGluGlu 850
                                                                             531 SerPreValArnSerPreLysLysLysOlySerThrThrAraValAcmSerThrAlaAan
                                                    1729 TCTCCTGTAAGATCTCCAAAGAAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAAT
                                                                                                                                                                                                  631 MetTyrGly1leCycLysValLysAsulleAspLeuLysPkeLysIleIleValThrAla
                                                                                                                                                                                                                                                                                                         TyrLysAspLeuProHisAlaValGlnGluThrPheLysArqValLeuTleLysGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                691 IleLeuGlnTyrAlaSerThrArqProProThrLeuSerProIleProHis1leProArq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        711 SerProTyrLysPheProSerSerProLeuArqIleProGly31yAsmileTyrileSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2329 CCCCTGAAGACTCCATATAAAATTTTCAGAAGGTCTGCCAACAACAAAAATGACTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgSetArgIleLeuValSerIleGlySluSerPheSlyThrSerCluLysPheGlaLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IleAsnGlnMetValCysAsnSerAspArqValLeuLysArqSerAlaGluGiyserAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  791 ProProfysProLeuLysLysLeuArgPh@AsplleGluGlySerAsplluAlaAspNly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2509 CCTCCTAAACGACTSAAAAAAGTAGGTTTGATAGAAGGATGAGAATGAAGGAGATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   591 ArgLeuLeuSerGluHisProGluLeuGluHisIlelleTrpThrLeuPheGluHisThr
                                                                                                                                                                                                                                         611 LeuGlnAsnGluTyrGluLeuMetArqAspArgHisLeuAspGlnLleMetMetCysSer
                                                                                                                                                                                                                                                      2689 AAA 2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            851 Lys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
US-09-469-522-3
                                                                                                                                                                                                                                                                                                                                               651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                          9
                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                   \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                   g
                                                                              ć
                                                                                                      q
                                                                                                                                 ŝ
                                                                                                                                                                                    ô
                                                                                                                                                                                                                                         ô
```

; Sequence 3, Application US/09469522

```
27 AAGAAGTATGATGTATTGTTTGGCCTTTCAGCAAATTGGAAAGGACATGTGAACTTATA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   187 IATIIGACACACACACTICGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAA 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   % AsnleuLeuLysGluIleAspThrSerThrLysValAspAsnAlaMetSerArgLeuLeu 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         76 LysLysTyrAspValLeuPheAlaLeuPheSerLysLeuGluArqThrCysGluLeuIle 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46. Met SerpheihrPheihrClui.cuGini.ysAsnileGluileSerValHisi.ysPhephe 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'ALGEGITTCACTITIACTGAGCIACAGAAAAAAAATAGAAATCAGTGTCCATAAATTCTTI 66
                                                                            Henedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA THMOR SHIPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PC'DOS/AG-DOS
SOFFWARE: Patentin Poloaso #1 0. Version #1 30
SURRENI APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3218
816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US 109 1126-459A-39 (1-851) x US-09-469-522-3 (1-3218)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER, UC/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION - Unknown>
                                                                                                                                                                                                            ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                  ZIP: 77210-4433
COMFGIER READABLE FORM:
MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 3218 base pairs
                                                                                                                                                  PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILLING DATE: < Unknown.>
ALTHRINEY ZAGENT INFORMATION:
                                                                                                                                                                                                                                       STREET: P.O. BOx 4434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ELEFAX: 512,474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHAPACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic acid
                                                                                                                                                                                             SERESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100,00%
                                          APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4192.00
                                                                 Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95.668
                                                                                                                                                                        NUMBER OF SECTIONALES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOC
US20020151461A1
                                                                                                                                                                                                                                                       CIIY: Houston
                                                                                                                                                                                                                                                                                                    COUNTRY: USA
                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rest Local Similarity:
                                                                                                                                                                                                                                                                              SIAIE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Allqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cuery Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
```

```
1027 TATTACCGAGTAATGGAATCCATGCTTAAATCAGAAGAACGATTATGCATTGAAAT 1086
                                                                                                                                                                                                                                                                                                                               116 ValSerTrp1leThrPheLeuLeuAlaLysGlyGluValLeuGlnMetGluAspaspLeu 135
                                                                                                                                                                                                                     196 HellellovalleucystysclobisclocysAsmileAspolavallysasmvallyr 215
                                                                                                                                                                                                                                                                                                                                                                                              236 GluValGluAGnLeuSerLysArgTyrGluGluTleTyrLeuLysAsnLysAspLeuAop 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                396 PheScriysLeuteuAsnAspAsnTePheHisMetScricat.coalaCysAlateuGlu 415
                             247 GEFEGEFEGGAFGAFTTTTATTAGGTAAAGGGGAAGTATTACAAATGGAAGATGATGTGTG 306
                                                                                              307 GTGATTTFFATTTFAGTTAATGCTATGTGTCCTTGACTATTTTATTAAACTCTCGCCTCCC 366
                                                                                                                                                                                                 176 ProArqArqGlyGlnAsnArqSerAlaArqIleAlaLysGlnLeuGluAsnAspThrArq 195
                                                                                                                                                                                                                                                                                                487 ATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAAATGTTTAT 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256 AlaAryLouPheleuAspHisAspLysThrLouCinIbraspSerileAspScribeClo 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    667 GCAAGATTATTTTGGATCATGATAAAACICIIGAGACIGATICIAIAGAGACIIITGAA 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    296 ThrProValArgThrValMetAshThrIleGlnGlnLcuMetMetIleLeuAshSerAla 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      416 ValValMetAlaThrTyrSerArqSerThrSerGluAsnLeuAspSerGlyThrAspLeu 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        436 SerPheProTrpileLeuAsnVali.cuAsnheuI.ysAiaPheAspPheTyrLysValile 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         456 GluserPhelleLysAlaGluGlyAsnLeuThrArgCluMetIleLysHisLeuGluArg 475
                                                                                                                                                                367 AUGUIGGIGAAAGAAGCAIAIAAAACAGCIGITATAGCCAITAAIGGIJGAGCIGGAACA 426
                                                             SerAspGlnProSerGluAsnLeulleSerTyrPheAsnAsnCysThrValAsnProLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      376 TyrTyrargValMetGluSerMetLealysSerGluGluGluArgheuSerileGluAsn
                                                                                                                               156 MottogroupsChiProTyrtysThrAlaVallTePretleAsnClySerProArgth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . qc
                                                                                                                                                                                                                                                  ;
0,7
                                                                                              Q.
                                                                                                                                                                q
                                                                                                                                                                                                 á,
                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
```

476 CysGluHisArqIleMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeu 495

òχ

Tue Jan 21 10:03:39 2003

5

ã 5 5 â Š Ē 5

Db 2407 AAGGAGAAAATGAATGATAGCATGGATACTTGAAAGAAGAAGAAGAAA 2454

				_
«Lyadlasertyahapharid) HTELLITILITILITILITI IAAAYAATCAAAGGAMGAGA	etyedtasertypaaga at tot of yerstlichellisteidaseraturyserateur 11 februari 11 februaria eta 11 februaria eta 17 februaria et	515		
deutroleuchnAshAshH 	ASDICOUT OLOGIDAS DASHUSTINA JAALAAS PINCETYT LOUGOTP OVATAFS CETTIN THE	535 1506		
otystystysctyserthrib 1110-141111111111111 vaataaaaagti roaarta	Protystystystystyserthrithtrangvalasuserthralaasnaladuulhrdinala 	555 1566		
Thi SeralaphediaThirdiatysProLeuLys; 	SPEOLEOLYSSPETHESELEOSE LEOPHETYELS HELLICHTHILLHILLHILLHILLHILLHILLHILLHILLHILLHI	575 1626		
VALTYTALGUALALYTIG TITLLITITITITITITI WIGIALOGGIAGOUTALGI	LysVallyfatgledalafytfedardledasnihtledfysGluarglediguserflu 111111111111111111111111111111111111	595 1686		
SPTOGLULÆUGLUHÍSTLETI TITTTTTTTTTTTTTTTT YYYAGAALFAGAAGALATGAI	HISPTOGLULEUGLUHISTLETLETEPHEGEPHEGINHISPHELEUGLESSIGLUFYE TELLITELLETLETLETLETLETLETLETLETLETLETLETLETL	615 1746		• • •
ilen <b>Met ArgAspArgHist</b> k 111111111111111111 WTCATGAGAGAGGATTT	GTULEUMELANGSPATGHISLEUASPGINITEMELÜHELCYSSETMELTYFGLYITECYS TITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	635 1806		
sValEySAsniloAsplouty HITTITITITITITITITI NGTGAAGAATATAGACSTTAA	LysVallysAsnileAspleniysPhetysTletTeValThratatyttysAsplenPety 	655 1866		
sataVatGInGTuThribety FILLEFILLETTH FGCIGLEGAGAGALICAA	HEALAVATOTICTUTD PDA LYSANGVALICUTTOTAS LUGING LUTYTAS PSECTIC FELLETETETETETETETETETETETETETETETETETET	675 1926		
«ValbhetyrAsnserValbh 	Hevvalehetyrasinservalehemer Glinkeitleutysthrasin Letaughilyrrala 	695 1986		
FILLITITION OF OTHER SECTION OF THE	Set than optoble the user Proffee of the Herroangset profyrtysphe   Heller Herriter Herroangset profee (Sandos Coltas Andrews Herroangset)   Herroangset Her	715 2046	•	<u> </u>
ProderSerProteubraffleth TTTTTTTTTTTTTTTTTTTTT PYTAGTTCACCTTACGGATTC	etrodtydtydsictefyrttesertroleitysserfro 1111 HTHTHHHHHHHHHHHHHHHHHHH 101100AGGAAGTCTATATTCAOGGGGAAGAGTCA	735 2106		
rLysTleSerGluGlyLeuPr FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	9119811-88-0314019[E-uPrOThrProThrLysMetThrProArgSerArgIleLeu 11111111111111111111111111111111111	755		
ValSerTleGlyCluSerPheGl ([[[[]]]])	edtygluserbegtyfbrscrofutysphedintystfeandinmetval PELETETETETETETETETETETETETETETETETETETE	775		
sAShSerASpArqValltents FELLTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	CYSASIISCEASPALGVA LEGILYSATGSOFA LIGITICI YSCEASIIV OLYSPYOLCO 	795 2286		···
LystystenArgPbeAsp11e01 FEETHTELETTTTTTTTTTTTTTT AAAAACTACCCTTGATATTG	ysterarapbeasettectustyseraspotualaaspotysertystisteupro 	815		<del></del>
Glychusertyspheshubhiy HIIIIIIIIIIIII GGGAAATTTCAGGAGAGA	usertysphotholniysledalaðlumetthrserthrarghrafgmetglin 111111111111111111111111111111111111	835		
SCHILYSMet AshAspSerMe	SMet AsriAspSey Met AspTht Sey Asnitys Clucinitys (85)			

Ě 5 ŝ 5 Ē 5 <u>.</u>  $\stackrel{>}{\supset}$ Ê 5 <u>-2</u> 2 5

```
9) ThrCysGtuLeu11e1yrLeuThrClmProSerSer HeSerThrClutteAsmSer 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: 1BM PC compatitle
OPERATING SYSTEM: PC DOS/MS DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-026-459A-39 (1-851) x US:09:469:522-36 (1-4113)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
FILLING DATE: 22-Dec-1999
CLASS FITGLION: <URKNOWN -
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAMEZKEY: CDS
LOCATION: 7..2349
SEQUENCE DESCRIPTION: SEQ ID NO: 36:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAMÉ: Hibler, David W.
REGISTRATION NUMHER: 41,071
                                                                                            Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/478 3000
INFORMATION FOR SEQ 15 NO: 36:
                                                                                                                                                                                                                                                                                  STATE: TX
COUNTRY 10SA
ZIP: 77210-4433
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                    Sequence 86, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGIH: 3113 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                            NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cont Similarity: 166,00% st. Local Similarity: 100,00% 91.67%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4017.00
                                                                              APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear
                                                                                                                                                                                                                                                                  CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qnment Scores:
09 469 522-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-469-522-36
```

150 246 170 306 190 366 210	426 230 486 250 546 270	290 666 310 726 330 340	350 846 370 906 390	410 1026 430 1086 450 1146 470 1206	1266
SVa	danarighthillillillillillillillillillillillillill		PPITCCLYTY TATAGGALAC ACALYSOCCID FILLIHHH TOCATCACAC TATAGAA	LeuSer LedhashPheserlysLeule HELLITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	ACATTIAGAACGAIGIGAACAIGGAAICAIGGAATCCCTTGCATGCTCTCAGATTC
187 187 171 171 187 189	467 241 241 487 251 547	2711 507 291 667 4111	441 447 447 441 441 441	391 367 411 1027 131 1087 451 1147 471	1207
5 8 5 8 5 8 5	d 7 2 3 3 3 d	5 2 5 2 5 2 5 2 5 2 5 2	5 8 5 8 5 8	\$ 2 \$ 2 5 2 5 8 \$	<u>e</u>

```
2167 CCIGCIAMACACISAAMAAN PASSCIIISAIAIISAASSAISAASAISAAGAAIGGA 2226
                                    1267 CCTTTATTTGATCTTATTAAACAATCAAAGGACCGAGAAGGACCAACTGATCACCTTGAA 1326
                                                                                       610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1627 CTGCAGAATGAGTATGAACTCATGAGAGAGAGCAITIGGAGCAAAITATGAIGTGTTGC 1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2047 AGATCAAGAATCIITAGTATGAATTGGTGAATTGGGGAGTTGTGGGGAAGTTGGAGAAA 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2287 CGAACACGAATGCAAAAGCAGAAAATGAATGATAGCATGGATACCTCAAACAAGAAGAG 2346
                                                                                                                                                                                                                                                                                             571 SerLeuPhoTyrLysLysValTyrArqLeuAlaTyrLeuArqLeuAspThrLeuCysGlu 590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       491 ProteuPheAsptealletysGtnSertysAspAragGluGlyProthrAspHisteuGlu 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   711 SerProTyrLysPheProSerSerProLeuArq11eProGlyGlyAsm11eTyrLleSer 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 791 ProProLysProLeulysLysLeuArgPheAsplleCluClySerAspGluAlaAspGly 810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         811 SortysHistouProdlydluSortysPhodladlatysLeuAlaGluMetThrSerThr 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               831\ {\tt ArgThrArgMetGloLysGloLysMetAsnAspSerMetAspThrSerAsoLysGloGlo.850}
                                                                       511 SerAlaCysProLeuAsnLeuProLeuGlnAsnAsnAsnHrAlaAlaAspMetTyrLeu
                                                                                                                                               531 SerProValArgSerProLysLysClysGlySerThrThrArgValAsnSerThrAlaAsn
                                                                                                                                                                                                                     551 AlaGluThrGlnAlaThrScrAlaPheGlnIhrGlnIysProLeulysScrIhrScrI.eu
                                                                                                                                                                                                                                                                                                                   591 ArgLeuLeuSerGluHisProGluLeuGluHisIleIleTrpThrLeuPheGluHisThr
                                                                                                                                                                                                                                                                                                                                                                                           611 LeuGlnAsnGluTyrGluLeuMetArgAspArgHisLeuAspGln1leMetMetCysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       631 MetTyrGlylleCysLysValLysAszlleAspLeuLysPheLyslleIleValThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #51 TyrLysAspLeuDroHisAlaValGlnGluThrPheLysArgValLeuIletysGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CluffraspScrileIlcValPhcTyrAsmScrValPhcMctGlnArgLoulysThrAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           691 IleLeuGlnTyrAlaSerThrArgProProThrLeuSerProIleProHisIleProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1987 CCCCTGAAGAGTCCAIAIAAAAIIICAGAAGGLCIGCCAACACCAAAAATGACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         771 IleAsnolnMetValCysAsnSerAspAraValLouLysAt4SetAlaGluOlySerAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                               \circ_{Y}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ο.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
```

851 Lys 851

```
807 ATC ---
                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
g
                           ò
                                                     <u>:</u>
                                                                                 ò
                                                                                                          9
                                                                                                                                       ó
                                                                                                                                                                 â
                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                              ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ٠<u>٠</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LouAspGluMetSerPherrorenter-ThrPheThrGluLeu 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MetProProLysFbrProArqLysFbrAlaAlaTbrAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                  Henediet, William F.
Zhou, Yunli
TITLE of INVENTION: M-GIFTED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible oPERATING SYSTEM: PC DOS/MS DOS SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3347
790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.5° 2.7°
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US OF 026 459A:49 (1-851) x US OF 469-522-42 (1-3347)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21 ProAlaProProProProProProGluValAsp .....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
                                                                                                                                                                                                                    ADDRESSEE: Arrold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NOMBER: US/09/469,522
FILING DATE: 22 Dec 1999
CLASSIFICATION - Unknown -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 7..2583
SEQUENCE DESCRIPTION: SEQ ID NO: 42:
                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FELECOMMUNICATION INFORMATION:
FELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                  E 09 459 522 42
Sequence 42, Aprilianium 00;09469522
Patent No. 9320020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 4447 base pairs
                                                                                                                                                                              PROFEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: «Unknown»
ALTOENEY/AVTENT INFORMATION NAME: HIDLER, DAVID W.
RESISTRATION NUMBER: 41
                                                                                                                                                                                                                                    STREET: P.O. BOX 4444
                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IMPE: nucleic acid
SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 42: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                          NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                COMPUTER KEADANLE FORM:
                                                                                                        APPLICANI: Xu, Hong Ji
Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4007.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92.51%
91.01%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91.44%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        topology: linear
                                                                                                                                                                                                                                                                                       77210 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KRY: CDS
                                                                                                                                                                                                                                              Bouston
                                                                                                                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                             STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
           2147 AAA 2144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US UB 469 522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Querry Mateh:
DB:
                                       PESHLI 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ţ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
```

```
060 GATATAGGALACATCLITIAAAGAGAAALTIGGLAAAGGIGFGGGAAAAGGILGEGGAA 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        384 LeutysserGluGluGluArqLeuSerlleGluAsnPheSerllysLeuLeuAsnAspAsn 403
                                                                                                                                                                                                                                                                                                                                                                                                                124 AlaLysGlyGluValLeuGlnMetGluAspAspLeuVallIoSorPheGlnLeuMetLeu 143
                                                                                                                                                                                                                                                                                                                                                                                                                                      ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          224. As n Ser Lou Glyt, cu Vallbir Ser As n Glyt, vallt of lu Vald lu As ni cu Ser Lys Arg. 243. \\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     244 TyrchuchalleTyrLeuLysAsnLysAspLeuAspAlaArqLeutheLeuAspHisAsp 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   304 ThrileGluGluLeuMetMetIleLeuAsnSerAlaSerAspGluProSerGluAsnLeu 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ***** *** *1G1A1C111A1TGCAGCA:11GA.CTAG1C **9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      460 IGTGTCCTTGACTATTTTATTAAACTCTCACCTCCCATGTTGCTCAAACAACAACATATAAA 519
127 GACCTGCCTCTCGTCAGCTTGAGTTTGAAGAAACAGAAGAACCTGATTTTACTGCATTA 186
                                               44 ClntysAsulleCluffeSerValHisLysPhePheAsnLeuLeuLysGluffeAsplhr 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     64 SerThrIysValAspAsuAlaMetSerArgLeuLeuLysLysTyrAspValLeuPheAla
                                                                                                                                                                                                                                 84 LeuPheSertysLeuGluArqThrCysGluLeuTleTyrLeuThrClnLroSerSerSer
                                                                                                                                                                                                                                                                                                                       104 HeSerThrGlufleAsnSerAlaLeuValLeuLysValSerTrpHeilhreheuLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  164 ThralavallleProffeAsnGlySerProArqThrProArqArqClyGlnAsnArqSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      284 AsnicuAspCluCluValAsnValTleProProBisThrProValArgthrValMetAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                760 TAGGAAGAAATITATGIIAAAAATAAAGARGTAGGAAGAITAITII LGGALGAIGAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         364 IledlySerGlmArqTyrLysLeuGlyValAraLeuTyrTyrArqValMetGluSerMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   204 HisCluCysAsnilcAspCluValiysAsnValiyrihciysAsnPholloProPhoMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           264 LysthrieuGinThrAspSerileAspSerPheCluthrGinArqthrProArqLysSer
```

```
2380 AGAAGTGCTGAAGGAAGCAACCTCCTAAACCACTGAAAACTAGGCTTTGATATTGAA 2439
                                                                 784 ArqSorAlaGluGlySerAssProProLysFroLeaLysLysLeuArqPheAspIleGlu 803
                                                                                                                                                                                                          824 LouAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 843
                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: 18M PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AFFLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Longth:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME, KLY: CDS
LOCATION: 7..2613
SHOURECT DESCRIPTION: SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                    2560 GATACCTCAAACAAGGAAGAAA 2583
                                                                                                                                                                                                                                                                                844 AspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                    Sequence 46, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: 512/418-3000
TELEFAX: 512/447-777
INFORMATION FOR SEQ. ID NO: 46:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 3377 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE, nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3991.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FOPOLOGY - linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
ZIF: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                   ; Patent No. US20020151461A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-469-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Prod. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score:
                                                                                                      9
                                                                                                                                                                       qq
                                                                                                                                                                                                            ò
```

We Broke (1 + 65)   x (8 + 99 + 459 + 522 + 45 (1 + 347)     We Broke (1 + 65)   x (8 + 99 + 459 + 522 + 45 (1 + 347)     A 19 17 OF CONTROL OF COPTOR OF CONTROL O	ercent est Li mery N	χ <u>ξ</u> Ξ	imilarity: 1 Similarity: ch:	HS, 24% HS, 134% 91, 08%	Conservative: 1 Mismatches: 1 Indels: 2	\$6	
	S. 0.3	-	19A 89 (1:85	X US-09 469	522 46 (1-3377		
	> _2	1 7	Met ProProLysTh 	ar ProArgEysThrA THELLITTELLITE ProdectaAAAAGGG	ManjaThrajanjanjan. HTTHHHHHHHHH SCCCCCCCCCCCCCC	laAlaAlaGluPro HTELLITITEE eegeegeggAAGC	20
	3*	7.1		)oldoldoldoldo		- 1	30
	شد	6.7		111-11-11-11-11-11-11-1-1-1-1-1-1-1-1-	ACCCAGAGGAGG	AGCGGGGGAG	126
	:-				1	1 1 1 8 8	3.0
	<u></u>	171	Ě	CAGGCIEGAGITE	aadaaadagaaggaag	ATTTTACTGCATIA	186
	>	÷					3.0
	÷.	1 H /	AIIAA	ACCAGALCA	HCAGAGAGAGGT FGGH	000110	246
	5%	÷				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3.0
	ش	7 47	TTCATC LGIG	IGGAGIATE	3GTTATATTCAAAAGAAAA	AGGAACTGTGGGGA	908
		<u>-</u>		ValAspi	.cuAspGluMetSerPhell	hr Phe PhrGluLeu	<b>*</b>
	ش	107	ATCTGTATCTTTAT	TGCAGCAGTIGACC	TAGATGAGATGTGGTTCA	CTITION	366
			GlaLysAsaIleGl	ulleSerValHisI	ysPhePheAsnLeuLeuLy	ysGlulleAspThr	63
4 4 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	a.	16.7	CACAAAAACATACA	AATCACTCCATA	AAATTOTTTAACTTACTAA	AAGAAATEGATAGG	≺*
	تد ج	6.4	SerThrLysValAs	spAsuAlaMet SerA	ArgLenLeuLysLysTyrAs 	SpValLeuPheAla	83 486
	Y	¥	LeuPheSerLyst.c	uGluArqThrCys0	Muleoffyrteufhrd	InProSerSerSer	
	4	487	CTCTTCAGCAAATT	GGAAAGGACATGTG	HILLILLITTELLITELLE	AACCCAGCAGTTCG	Ġ
	*	104	HeserThrelull	.eAsnSeFA]a[.euV	/all.eut.ysValSerTrp1.	leThrPheLeuLeu	123
		547	Ald				Ġ
	>-	1.24	AlaLysellycluVa	ilLeuGlnMetGluA	NspAspLeuValIleSerP	heGluLeuMetLeu	_
	â	543		:		1 1 4 1	549
	14	144	CysVall.cuAsply	r the Hetystens	ser ProProMet.Geulleuf.y	ysGluProTyrLys	163
		5.43			0	1	549
	> .	164	Thr Alaval HePr	olleAsudlySerF	ProArgThrProArgArgG	lyGlaAsnArgSer	18
	ے	000	GFCGCTGTTATAC	CALTAATGGTTCAC	JOTOGAACACCCAGGCGAGG	GTCAGAACAGGAGT	609
	<u>ب</u> ج	184 610	AlaargilealaLy 	rsGlaLeuGluAsnA TITITITITI ACAACTAGAAAATG	ASPTHARAGIEILEGIUVA HTTTTTTTTTTTTTTT SATACAAGTATTATTGAAGT	alLeuCysLysGlu 	203
	:-	707	HischucysAsh!]	eAspCluValLysA	ASBVALT YEPROLYSASBPP	helleProPheMet	223
•	شد	670	CATGAATGTAATAT	AGATGAGGTGAAAA	ATGITTATTCAAAATT	TIATACCTITIATG	729
	<u>د</u> ج	224 7.80	ASDSPELEUGLYLP THITTELLITT AATTCICLIGGACT	eaValThrSerAsno 	31yLeuProglaVa161aAd HTTTTTTTTTTTTTTT 3GACTTCCAGAGGTTGAAAA	GELLOUSELLYSALG 	243
y 244 TyrtibothulleTyrLeutysAsaltysAspleuAsplacaPheleuAspHisAs	<b>3</b> 5-	4	TyreluglurleTy	// LeuLysAsnLysA	AspleuAspAlaArqLeuP!	helæuAspHisAsp	263

qu	790	TAGGAAGAATTTATCTTAAAAATAAAGATCTAGATGAAGATTATTTTGATCATGAT	845
oy	264	Lysthilledithtaspsorticaspsortherinitititititititititititititi	58.4
og	850		50.5
90 00	284	AsnieuAspGluGluValAsnVallleProProHisThrProValArqThrValMetAsn 	303
oy	304	304 ThrileGinGinleumetmetileleumanseralaseraspöluptusergiuasnieu (2)	42.4
Oy			10.29
Oy Db	324	TLESETTY PREASINASICYSTA VALASIRPOLYSOLUSOT HELAULYSALAVALLYS HILLIH ATTHOCIALIH HAACAACIAGAA GCACAGGAA ICCAAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAG	44.4 1089
Q.Y	344	ASPITECTYTYLTTEPRELISCHALISCPRENTALISCALAVATOTYCTYSVATGTU 	164
Oy	364	HedlyserGinargiyilsslendiyvalarakaniyriyraravalmetelilili	383
Db	1150	HILHHILHHILHHILHHILHHILHHILHHILHHILHHIL	1209
OY	384	LeulysSerGluGluGluArqLeuSerTleGluAsnPasieDeserLysLeuleuAsnAsnAspAsn	403
Db	121@		
Q Op	404	TLEPHEHISMELSerLeutzeuAlacysAlateuGluValValMetAlaThrTyrSerArd TELLITTELETTELEHITTELEHITTELEHITTELEHITTELEHITTELEHIT AFFTFFCATALGICTFFALIGGCGTGCGCTTLGAGNITGTAALGGCYAVALALAGVAGA	423
QY Dp	424	SerThrSerGinasnicedAspSerGlythrAspicedSerPheProTrp   Leterabandal   Lill   Lill	444
QY	1390	LeuAsniculysAlaPheAspPheTyTiysValiteGiuScrPheifeLysAlaGiuGly 	463
oy	464	AsniceuThrargGluMetTleLysHisLeuGluAraCysGluHisAraTleMetGluSer	483
op			1509
Oy	484	LeuAlaTrpleuSerAspSerProLeuPheAspLeuHetysGlnSerLysAspArachu	503
Db			1569
Oy	50 <b>4</b>	GTyProThrAspHistouGluserAladysProLouAshLouProLoudInAshAshHis	524
Db	1570		1629
à g	524 1630	Thralanlanspiket TyricouserProValangsetProlysiysiysiybilysetThithere it	543
oy	544	ArgvalasnSerThralaasnalaGluThrGlnalaThrSerAlaPheGlnThrGlniys	563
D	169 <u>0</u>		1749
Oy	564	ProleulysSerThrSerLeuSerLeuPhoTyrLysLysVallyrArqLeuAlalytheu	583
Db	1750		1809
oy	58 <b>4</b>	ArqueuAsithtLeutysGluArqueuLeuLeuserGluffisProGluLeuthulbellellellellellellellellellellellellel	603
De	1810		1869
o y	604	TrpThricouPheCinHisThricouCinAsnCinjyrCinLcuMctArqAspArqHistori HTHHILLEHHIIIHHIHHIHHIHHIHHIHHHIHHHIHHHIHH	623

```
:> © GACCAAATIATGATGTGTCCATGTATGGCATATGCAAAGTGAAGAATATAGACCTTAAA 1989
                                                                                                                                                                                                STID STATE S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2: 50 0 0 0 0 0 1 1 1 GA 1 CAAAGAAGAGGAGGA I GA I CHAFTATAAGTATAAACTCGGGCTCTTC 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     664 ArdValle-uleLysGluGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe 683
624 AspGln11eMetMetCysSerMetTyrC1yTTeCysTysVallysAsm14cAspGculys 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        684 MetGInArdLeuLySThrAsnlleLeuGinTyrAlaSerThrArgProProThrLeuSer 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.4 ProlleProHislleProArgSerProTyrLysPheProSerSerProLeuArgllePro 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      744 ThrProThrLysMetThrProArgSerArgITeLeuValSerTTeClyGLuSerPheGly 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      764 ThrSerGluLystheClmLystleAsnClnMctValCysAsnScrAspArgValLcuLys 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       784 ArdserAladludlyserAsnProProLysProLeuLysLysLeuArgPheAspIleGlu 803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   804 01ySerAspGluAlaAspSlySerLysHisLeuProGlyGluSerLysPbeCleGlnLys 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    824 icuAlaGluMetThrSerIhrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TILLE OF INVENTION: MODIFIED RETINOBLASTOMA THMOS SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2590 DALACTICAAACAAGGAGGAGAAA 2613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 48, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          844 AspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MPUTER READARLE POPM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shi - Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIAIE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-464 722-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21 1 10834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>ء</u>
```

```
67 CCGGCACCGCCGCCGCCCCCCTCCTGAGGAGCACCAGAGCAGGATAGCGGGCCGGAG 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ू
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 247 GITTIFÇATÇIFÇATĞÇAĞTATTIĞĞGAĞĞTTATATTEÇAAAAGAAAAĞĞAAÇTĞTĞĞĞĞA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  367 CAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAAATTGATACC 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           84 LeuPheSerLysLeuGlaArgThrCysGluLealleTyrLeuThrGlnProSerSerSer 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            487 CICTICAGCAAATIGGAAAGGACATGIGAACTIAIAIAIIITGACACAACCOAGCAGITCG 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          44 CINLYSASITICGIUITCSCTVALHÍSLYSPREPREASILEULÆULGULYSGIUTTCASPTRT 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31 -------ValAspLeuAspGluMet.SerPheThrPheThrGluLeu 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64 SerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspValLeuPheAla 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3383
794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-026-459A-39 (1-851) x US-09-469 522-48 (1-3383)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative:
Mismatches:
CURRENT APPLICATION DATA:
APPLICATION ADMINEL US/09/459,522
BLING DATE: 22-Dec-1999
CLASSIFICATION CORROWD>
PRIOR APPLICATION DATA:
                                                                                                                                                                         REFERENCE/DOCKET NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21 ProAlaProProProProProProGlu-----
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ 1D NO: 48;
                                                                                      AFFLICATION NUMBER, 09/026,459
                                                                                                                                                          REGISTRATION NUMBER: 41,071
                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                           TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                               LENGIH: 3383 base pairs
                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                          FILING DATE: <Unknown>
                                                                                                                                                                                                                         TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 48:
                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                  ..2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3984, OD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  85.568
85.568
90.928
                                                                                                                                                                                                                                                                                                                                  POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                  LOCATION:
                                                                                                                                                                                                                                                                                                                                                                  NAME, 'KEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30 -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                  FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30 --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

8 3 8 3 8

Š

5

ŝ ŝ

5 2 5 2 5 2 5 2

 $\frac{1}{2}$ 

1.4.	ATATOTAN TRANSPARTED OF THE STATE OF THE STA	909	
1.24	ALALYSOLYOLUVALLOUGIBASPASPASPASATTIOSOTPHOGINLOUMETLOU THITTHITHITHITHITHITHITHITHITHITHITHITHI	143 556	
144	CysValLeadspTyrPhethetysLeaserProProMetLeaLeaLysGluProTyrLys [	163	
164	Thr AlaVal   HeProl   PASHG  ySerProArqThrProArqArqG  yG  nAsnArqSer   H   H   H   GSS[CG	183	
- 8	AlaArqileAlatysGlutandinAsnAspihrArqileTleGluValLenCystysGlu	203	
7.45,		735	
<b>7</b> 07	HischufysAsnileAspol (VallysAsnValTyrfdeLysAsnPhefleFroPheMet	8 84 84 84	
7.45		7.85	
2.24 7.16	Ashes treelytesValthese AshelytesAroluValGhashtsetesSeebysArg	24.3 7.95	
244	trg1.ug1ut1e1yrteutysAsn1ysAspteuAspA1aArgLeuPheteuAspHisAsp 	263 855	
264 856	LysThrLeudlufhrAspSerlleAspSerPhedlufhrGlaArqThrProArqLysSer 	283 915	
284 916	ASILE-UASPOLUGLUVALASIOVALLI-PPROPROHISTIR/PROVALARGETAR TABLE ASIL AND TECHNICI III III III III III III III III III	303 975	
404 976	The Hed holinumet Met HelenanSeralaSeraspdinProSerGluasnicu	323 1035	
3.24 10.36	THESE TYPERFORMANCY STREAD TABLE SETTIFIED FLOWERS AND VALUE AT HEAT HELD HELD HELD HELD HELD HELD HELD HELD	343 1095	
\$4.4 10096,	ASETHACLYTYT DEPRETACOLISTS PREALALYSALAVALGISCLYCYGVALGIU 	363 1155	
46.4 115.6	The STYSE COLORA OF THE STATE O	383 1215	
184 1216	Leut.ysSertChuthuthututateuserthethnAsphesertysteuteuAshAspAsn 	403	
404	Define the transfer of the t	423 1335	
4.24	4.24 SorthriserthaspilouaspSortHythrasplousorphoProfrpHotuleilananval 443 HHILLEHHILLHHILLHHILLHHILLHHILLHHILHHILH	443 1395	
444	Leudsbildeutssaldehedspehetyrtysvaltilediuserphetletysaladiudty 	463 1455	
464	Asoleu/TurzergeluMet Helystfisteu/Glozegys/GloHiszergileMet/GluSer	483	

3

5 3 5 3 5

5 â

```
2115
                                                                           1876 TGGACCCTTTCCAGCACACCCTGCAGAATGACTATGAATCATGATGAGACACATTG 1935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HITTELLE HIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2296 ACACCAACAAAAATGACTICCAAGAATCTTAGTATGAATTGTGAATGATTGGGT 2355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1456 AACTTGACAAGAGAAATGALAAAACATITAGAACAAGIGAACATCGAALCATGGAATCC 1515
                                                                                                                                                                                                                                                                                                                                                                                                     1,4 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1756 CCATTGAAATCTACCTCTTTCACTGTTFFATAAAAAGTGTAFCGCTAGCCTAFCT 1815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1816 GGGCTAAATACACTTTGTGAACGCCTTCTGTCTGAGCACCCAGAATTAGAACATATATCTC 1875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ÷
38°
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 724 GLYGLYASIN HGTYL FLOSOT PFOLONINGSSOL PFOTYTHYS FLOSOT GLUGLYLOUTEN 743
ELLEFFELELET HELLEFFELELET HELLEFFELELET HELLEFFELELET HELLEFFELET HELLEFFELET HELLEFFELET FELET FELET FELET F
2236 GGAGGGAACALCTATALTH TICACCCCIGAAGACI COATAAAAH HOAGAAAGH CAGAACA 2295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  644 PheLysTletleValThrAlaTyrLysAspt.cuProHisAlaValGluGluThrPht-Lys 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           624 AspGIntLeMetMetCysserMetTyrdTyTTeCysTysV1HTyeAsuHeAspHetHys 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   704 ProlleptonisileptoarqSetProTytLysPachtoSetSetProLeuAtqtTePro 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       524 ThrAlaAlaAspMetTyrLeuSerProValArqSerProLysLysLysClySerThrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       544 ArgValAsnSerThrAlaAsnAlaGluThrChnAlathrSerAlaPheMhdlaGludys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           564 ProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArqLeuAlaTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArqueuAsnThrileuCysGluArqleufeuSerGluHisProGluHardluHis+Delle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            604 TrpThrLouPheGlnHisThrLeuGlnAsnGlnIyrGlnLouMetArgAspArgHisLou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1996 TTCAAAATCATTGTAACAGGATACAAGATCTTCCTGATGCTGTTCAAGAGAGATCATTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ArgValleufletysGluGluGluTyrAspSerflelleValPheTyrAsnSerValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   684 Met.GlnArqLeuLysThrAsnIleLeuGlnTyrAlaSerThrArqProProThrLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        744 ThrProThrLysMetThrProArgSerArg11eLeuValSer11eG1yG1uSerPheG1y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              784 ArgSerAlaGluGlySerAsnProProLysProLouLysLysLeuArgPleAspilleGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         804 GlySerAspGluAlaAspGlySerLySHisLeuProGlyGluSerLysPheGluGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2476 GGATCAGATGAAGCAGATGGAAGTAAAGATGTGGAGAGAGTGGAATTTGAGGAAA
                                                                                                                                                                                                                                      504 GlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGluAsnAsnHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qa
                                                                                                                                                      <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C<sub>C</sub>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                             2
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

Search completed: January 19, 2003, 05:40:19 Job time : 150:122 secs

```
Copyright (c) 1993 - 2003 Compugen Ltd.
```

Trondo
3
obon wa paisu
derica search
010
Torrio I
107.
2000
ž

January 16, 2003, 15;20;22 ; Search time 94.5515 Seconds (without alignments) 16320.731 Million cell updates/sec кит оп:

US-09-026-459A 40 4461 Perfect score:

1 CGCGTCATGCCGCCAAAAC... Sequence:

... AAATGAGGATTATTGATAGT 3461

191868 seqs, 222934149 residues sear ched:

Gapup 10.0 , Gapext 1.0

IDENTITY\_NUC

Scoring table:

Total number of hits satisfying chosen parameters:

787736

Maximum DB seq length: 2000000000 Minimum DB seq length: o

Listing first 45 summaries Maximum Match 100% Post processing: Minimum Match 0%

Database :

/cqn2\_6/ph odara/l/pubpa/US07\_PUBCDMB.seq:\*
/cqn2\_6/pt odara/l/pubpa/PCT\_NEW\_PUB\_seq:\*
/cqn2\_6/pt odara/l/pubpa/PCT\_NEW\_PUB\_seq:\*
/cqn2\_6/pt odara/l/pubpa/NS04\_PUBC-MB\_seq:\*
/cqn2\_6/pt odara/l/pubpa/PCTUS\_PUBCOMB\_seq:\*
/cqn2\_6/pt odara/l/pubpa/PCTUS\_PUBCOMB\_seq:\*
/cqn2\_6/pt odara/l/pubpa/PCTUS\_PUBCOMB\_seq:\*
/cqn2\_6/pt odara/l/pubpa/NS08\_PUBCOMB\_seq:\*
/cqn2\_6/pt odara/l/pubpa/NS08\_PUBCOMB\_seq:\* /cqn2 6/ptodata/1/pubpna/US09\_PUBCOMB.seq:\* /cqn2\_6/ptodata/1/pubpna/US10\_NEW\_PUB.seq:\* /cun2\_6/ptodata/l/pubpna/US10\_PUHCOMH.seq:\* /cqn2\_6/ptodata/l/pubpna/US60\_NFW\_PUH.seq:\* Published\_Applications\_NA:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

/cqn2\_6/ptodata/1/pubpna/US60\_PUBCOMB.scg:\*

Ressult		* 0				
ž	Score	Match	Match Length DB	1013	ID	Description
	1461	160.0		2	US-09-469 522-40	Sequence 40, Appl
7	4354.B	6.96		10	US-09-469-522-1	Sequence 1, Appli
<b>~</b>	4.45.4.H	6. 96	7	ტ	US-09-954-531-143	Sequence 143, App
4	1151.6	96.8		10	US-09-469-522-50	
·	4.247.B	8.15	1450	0.7	US-09-469-522-28	Sequence 28, Appl
ç	£15.	. } f.		9	US 09 469 522 38	
	1225.4	93.2		0:	US 09 469 522 34	Sequence 34, Appl
æ	1225.1	3.3		0:	US 09 469 522 32	32,
5	4225.4	5.56	3392	Ü	US-09-469-522-30	Sequence 30, Appl
10	3212	95.8		10	US 09 469 522 3	Sequence 3, Appli
11	3109	86.8		10	US-09-469-522-42	Sequence 42, Appl
7,1	3107	87.8		10	US-04-464-522 36	Sequence 36, Appl
~	2996.4	86.6		10	US-09-469 522 48	Sequence 48, Appl
14	2984.4	86.2		10	US-09-469-522-46	
	2827.4	81.7		10	US-09-469-522-44	
16	2657.2	76.8		0.	HS-09-860-211-7	7, A
17	4 2 H	12.4		٦	US-09-796-692-7740	Sequence 7740, Ap
Ξ.	142.2	4.1		10	US-09-864-761-3131	Sequence 3131, Ap
1.9	621	1.7		10	US 09 864 761 19910	Sequence 19910, A

TYPE: nucleic acid

Sequence 296, App. Sequence 37, Appl. Sequence 17, Appl. Sequence 1, Appl. Sequence 1, Appl. Sequence 2, Appl.	Sequence 1, Applia Sequence 3, Applia Sequence 3, Applia Sequence 3, Applia Sequence 342, App	Sequence 444, Appliand Sequence 11218, A Sequence 11218, A Sequence 1551, A Sequence 154, Appliand Sequence 1554, Appliand Sequence 1124, A Se	Sequence 1238, Ap Sequence 1248, Ap Sequence 4147, Ap Sequence 4050, Ap Sequence 749, App Sequence 5166, Ap Sequence 5166, Ap
0. US-09-964-824A-296 US-09-292-758-47 US-09-292-758-47 US-09-770-652-13 US-09-770-657-1		US-09-564-77-44 US-09-564-854A US-09-960-352-11218 US-09-960-352-4582 US-09-962-832-154 US-09-960-352-5558 US-09-960-352-5558 US-09-960-352-5558 US-09-960-352-5785 US-09-960-352-5785	B B B B
	1.4 640681 10 1.4 335913 9 1.4 35533 5 1.4 419 10	1.4 513509 9 1.1.4 424 10 1.1.4 424 10 1.1.1 10	
104 68.8 59.4 51	4 4 4 4 4 4 4 8 9 9 4 4 4	444 44444 680	10004000 444444 44444
0.00000 0.00000	0 00 0 00 0 00 0 00 0 00		0 00 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

## ALIGNMENTS

Benedict, William F. Zhou, Yunli TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR SOFTWARD: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA: ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433 CITY: Houston APPLICATION NUMBER: US/09/469,522 FILING DATE: 22-Dec-1999 CLASSIFICATION: <UNKnown> REFERENCE/DOCKET NUMBER: 01XC:506 TELECOMMUNICATION INFORMATION: COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS PRIGR APPLICATION DATA: APPLICATION NUMBER: 09/026,459 REGISTRATION NUMBER: 41,671 Sequence 40, Application 05/09469522 Patent No. 0520020151461A1 GENERAL INFORMATION: MEDIUM TYPE: Floppy disk TELEPHONE: 512/418-3000 TELEFAX. 512/474-7577 INFORMATION FOR SEQ ID NO: 40: LENGIH: 3461 base pairs PROTEINS Sukhown > ATTORNEY/AGENT INFORMATION: NAME. Hibler, David W. SEQUENCE CHARACTERISTICS: COMPUTER READABLE FORM: CORRESPONDENCE ADDRESS: NUMBER OF SEQUENCES: 51 APPLICANT: Xu, Hong-Ji Hu, Shi Xue 77210-4443 COUNTRY: USA FILLING DATE STATE: TX 08-09-469-522-40 PESULT 1

```
0;
                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 099
                                                                                                                                                                                                                                                                     301 AAATICTTTAACTTACTAAAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 AGAMTOTTGAAGAAMTATGAGATGTTPGGAGTGTFFGAAGAAHFGGAAAGAGTGT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 AGACTGTTGAAGAAGTATGATGTATGTTTGGCTGTTGAGAAATTGGAAAGGACATGT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661 CCTCGAACACCCAGGCAAGTCAGAAAAAAAGGGGATAGGGGATAGCAAAACAACTAGAAAAT 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.2.1 GATACAAGAATTALTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAGGTGAAA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781 AATGITTATTTCAAAAATTTTTATACCTTTTATGAATTCTTTGGACTTGTAACATCTAAT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841 GGACITCCAGAGGITGAAAAICITTCTAAACGATACGAAGAAAITTATCTTAAAAATAAA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901 GATOTAGAIGOAAGAYDATFITTGGAIGAFGADAAAAGTGTPGAGAGIGAHGTAYAGAG 960
                                                                                                                                                                                                                     241 CTAGATGAGATGTTTTTATTTTATGAGTATAGAAAAACATAGAAAATCAGTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 AAATICITIAACIIACTAAAAGAAATIGATACCAGTACCAAAGTIGATAATGCTATGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481 SIGCTAAAAGTTTCTTGGATCACATTTTTATTAGCTAAAGGGGGAAAGTATTAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541 GATGATCTGGTGATTTCATTTCAGTTAATGCTATGTGTCCTTGACTATTTTATTAAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541 GATGATCTGGTGATTTCATTTCAGTTAATGCTATGTGTCGTTGACTATTTTATTAAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOACCECCATGITGCICAAAGAACCATATAAAACAGCTGTTATAACCATTAAAGGCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721 GATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAGGTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781 AAIGITIATITCAAAAATITTATACCIIITAIGAAFICECEIGGACTIGIAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841 GGACTICCAGAGGTTGAAAATCTTTCTAAACGATACGAAGAAATTTA4CTTAAAAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 10; Length 3461;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                               100.0%; Score 3461;
                                                                                                                                                                   0; Mismatches
                                                                 LOCATION: 7.2697
SEQUENCE DESCRIPTION SEC ID NO: 40
SIRANDEDNESS: single
                                                              2697
            TOPOLOGY: linear
                                                                                                                                                                   Matches 3461; Conservative
                                                                                                                                                     Similarity
                                               NAME/KEY.
                                                                                                 US U9 469-522-40
                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                     <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                        â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      넢
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>..</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                          숤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
```

```
1081 AATTCAGGAAGTGAFGAACAGGAGAAAATGTGATTTCCTAFTTTAACAACIGCACAGIG 2140
                                                                                                                                                                                                                                                                                                                                                                        1321 ATTCAAAATTTTTAGCAAACTTCTGAATGACAACCATTTTTCATATGTCTTTTATTGGCGTGC 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1381 GCTCTTGAGGTTGTAATGGCCACATATAGCAGAAGTACATCTCAGAATCTTGATTCTGGA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021 CCTCCACACACTCCAGTTAGGACTGTTATGAACACTATCCAACAATTAATGATGATTTTA 1080
                                                                                                                                                                 1621 CCICCACACICCAGIIAGGACIGITAIGAACACIAICCAACAATIAAIGAIGATITIA 1080
                                                                                                                                                                                                                                           1141 AATGGAAAASAAASIAIAUTGAAAAGAGTGAAGGATATAGGATACATGITIAAAGAGAAA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                             1261 GTTCGCTTGTATTACCGAGTAATGGAATGCATGCTTAAATGAGAAGAAGAAGAAGGATTATGC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261 GTTCGCTTGTATTACGGAGTAATGGAATCCATGCTTAAATCAGAAGAAGAACGATTA1CC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1441 ACAGATTIGICITITICICATIGATTOTGAATGIGGITAATTITAAAAGGGTTTIGATTITIAC 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGIGATORAAARTTITATORAAARAAAAAAAATTISAOAAAGAGAAAATTITATORAAACAI 1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1501 AAAGTGATCGAAAGTTTTATGAAAGGAAAAGTGAAACTTGAGAAGAGAAATGATAAAAAGT 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1621 TIPTGATICTTATTAACAATCAAAGGACCGAGAAGGACCAACTGATGAGCTTGAATCTGG1 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1741 GIAAGAICICCAAAAAAAAAAGGITCAAATAAAAATGIAAATTCIAATATAAAAGG 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1861 ITTTATAAAAAGTGTATCGGCTAGCCIAFCFCCGGGTAAATACACFTFGFGAACGCCFI 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1921 CHGTCHGAGCAGCCAGAATTAGAAAGATATGATCTGGACGCFFFFGCAGGAGAGCGCGGG 1980
                                                                                                                                                                                                                                                                                                                   1141 AATCCAAAAGAAGTATACTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961 AGTILIGAAACACAGAGAACACCACAAAAAAGAGACTIGAAGAGAGGAALGIAALI
                                                                        1201 TITGCIAAAGCHGLIGGGAAAAGTTGLIGTGAAAFIGGA HJAGAGGGATAGAAAGTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321 ATTCAAAATTTTAGCAAACTTCTGAAIGACAACAITITICATATGTCTITAITGGCGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1561 PTAGAAGGA IGTGAAPATPOAATPATGGAATPGGTTGGATGGGTPTGAGAPTGAGGTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1741 СТААСАТСТСАААСАААААССТТСААСТАСТСТАААТТСТАА
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GG
G
                                                                                                                                                               걾
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뎝
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
```

¥ 1111	ATOLIANA UMACIAN PATALIANA ULUMAN TILANAN TILAT TILATAN ANCATARIANA
GATCI	ALGE AAAG LGAAGAATATAAACELTAAAATTGAAAATGATTGTAAGAAGAAGAAGAAGAAGAAG
CATTELLA THILLI GATTETA	CHATTATAGTATTCTATAACTCGGLCTTCATGCAGAGACTGAAATATTTTG FELLETETTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
¥ – ¥	CASTATOCHECACASSOCIOCEACHTGEOACAGAGCECACATTOCECAAGCCT THEFTER HELLET CONSAGCCCT
TACAAGT 	£ = =
A - A	AAUAUTECATATAAAATTICAGAAGGEGGCAACAACAAAA IGACTECAAGAIGA FELLIHTITITITITITITITITI AAUAUTECATATAAAATTICAGAAGGEGGAACAGGAACAAAAAATGACTGCAAGATGA
Q = Q Q = Q	AGAALCTEAGLALCAA EGGEGAALCATEGGGACTECEGAAAGTECAGAAATAAAT FELLELELLELLELLELLELLELLELLELLELLELLELLE
AGA AGA	CAGATGGTATGTAACAGGGACCGTGTGCAAAAGAAGTGCTGAAGGAAG
¥ – ¥	AAACTACUCAAAAAACTACCTITICAATATICAACCATICACAAGAAGAACGAACTAAAAAAAAAA
$\frac{5}{4} - \frac{5}{4}$	PATCHOCAUDADADHOCAAFTICACDACAACTGGCAGAATGACHTTACHTITITITITITITITITITITITITITITITITITITI
\$ = \$ \$ = \$	CDATOCAAAAGCAGAAAATGAATGATAGCATGGATACCTCAAACAAGGAGAGAAATGA 1111111111111111111111111
E E E	DALCHCADGACCHTGOLGGACACLGTGTACACCTCTGGATTCATTGTCTCTCACAGATG HTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTH
<b>Š</b> = <b>Š</b>	TOACHOFATAACHTECCAGO DCTCTTA TOGCCACATTTAATATCTTCAGCTCTTTTTT FELLITELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTE
ğEğ	GEGRATATAAAAATGEGAAGGAATTGETTGGGEGATTCCTAAGCACTCGAAATGETA 
2 = 2	GPCALIGHALITALACAAGA II GAAAALCI IGIGI AAA PCTGCCALTI AAAAAGTTGT 
4 - 5 5 - 5 7 - 5	ADPAGATION FOR CHIEVAAAGIAAAA LIOOTGIGCTII ATGGATAGIAAGAATGGC TITTII HILLII HILLII HILLII HILLII HILLII HILLII HILLII HILLII HILLII AGCAGATIGITI CHOTTICGAAGIAAAA HGCTGTGTGTGTATGGATAGTAAGAATGGCC
TATE TATE	NINCTOGGAGTOCTGATAAOOCAGGOCTGTCTGACTTTGCCTTCTTTGTAGCAT 
- A	ALAGGIGATGI LIGGICH CHICHTHATHATALIATALGFATATTTTT HAAFTTTAACALG

```
3361 TATCATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGATTATTTT 3420
                                                                                                                                                                                                                                                                              3121 AACACCCTTAGAAAATGTGTGTATCTATTTCCAAA16CAA111GA11GAC16CCATT 3180
                                                                                                                                                                                               3301 TTTATAAAATTTTGGTTTTAATTAAATAAAGGGGGGAAGGAAAGTATAACGTAGATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUFFRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible oPERATING SYSTEM PC FOS,MS DOS SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA: US/09/469,522 FILING DATE: 22.DEC-1999 CLASSIFICATION: 
UNKNOWN

                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: UTXC: 506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hu, Shi-Xuc
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
TELEPHONE: $12/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER KEADABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Sequence 1, Application 0S/09469522
; Patent No. US20020151461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 3555 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY / AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              · Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: P.O. BOX 4433
CITY: Bouston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-469-522-1
                               Q:1
                                                                                           qq
                                                                                                                                                            qq
                                                                                                                                                                                               ò
                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                                                                            qq
                                                               ò
                                                                                                                             ò
```

A - 24 - 21	SEQUENCE DESCRIPTION: SEQ 1D NO: 1;	qq	961
	0.5.5.5.1 0.6.0.9.0.00.00.00.00.00.00.00.00.00.00.00.	ŝ	428
Best Loc	al Similarily 97.3%; Pred. No. 9;	ΩįΩ	1021
	of College Value of Missing College St. 1110019 937 Cd	ΟŊ	988
à S	COCOLCATOR AAAACCCCCCCAAAAAAAAAAAAAAAAAAAAAAAAAA	ф	1081
	<ul> <li>でも、なるなどを含めています。これでは、これでは、ままままでいることがあるなどのなどではないできます。</li> <li>でも、なるなどを含めています。</li> <li>できます。</li> <li>できまます。</li> <li>できます。</li> <li>できます。</li> <li>できます。</li> <li>できます。</li> <li>できます。</li> <li>できます。</li> <li>できます。</li> <li>できます。</li> <li>できます。</li> <li>できまする。</li> <li>できます。</li> <li>できまする。</li> <li>できまする。<td>çy</td><td>1048</td></li></ul>	çy	1048
. <u>.</u>	or oraniciolade Articlopologico de Control de Novambro (Novambro Articlopologico) (120 	qu	1141
-	このでは、	ζ	1108
i d	21 CONSTRUCT FOR THE FORM THE STANDARD AND THE STANDARD TO STANDARD TO STANDARD TO STANDARD TO STANDARD TO STANDARD TO STANDARD S	QQ	1201
		Οy	1168
- = 3 ŝ		qq	1261
	23	Ś	1228
	CANDARAGE HICA FOLDTIGGA FOGRACHTTOGGAGTTTATTAGGAAAAAAAAAAAAAAAAAAAAAAA	qq	1321
	C. E. S.	ć	1288
	GOOGGAATICHCHTTTTTCACCACCACACACACACACACACACACACAC	qq	1381
	00-1001-11000-1100-100-100-100-100-100-	δy	1348
, f	200 ORGERACKARANCARA KOARA CARI ULUTAHARA FULI TARUTHAN TARAKARANTI 327 141 TITLI TITLI 141 GARCHARARA CARAKARA CARAKARA CARAKARA ARTAKARA ARTAKARA ARTAKARA ARTAKARA ARTAKARA ARTAKARA ARTAKARA ARTA	Ch	1441
	F TENNINGENERAL TOUR TOUR TOUR TOUR TENNINGENERAL TOUR TOUR TOUR TOUR TOUR TOUR TOUR TOUR	δ	1408
· · ·	220 GALMACAG ACCANAGETGALANTIGCHATGICKAGAGTGTGAAGAAGTATGATG 387  11   11   11   11   11   11   11   11	qu	1501
, 7	TO THE CONTROL OF CANADATA AND ACTUAL CANADATA AND ACTUAL TO THE CANADATA ACTUAL CANADATA ACTU	Ş	1468
r e		ΔĎ	1561
	OF THE CONTROLL OF THE CONTROL	Oy	1528
. v	AND THE CANADA TO A TOWN AND THE CONTROL OF A TOWN AND THE CANADA	qq	1621
^ u	41 NOTICOSTANTCINCTINCTINCTINCTINCTINCTINCTINCTINSTINCTINCTINCTINCTINCTINCTINCTINCTINCTINC	ςλ	1588
: 2 (1)	SO THE LANGUAGE SAND THE AND SOME SOUTH THE STAND THE SOUTH THE SO	qu	1681
Lí	C. A STANKA MANAKA MAN	Ç	1648
: a	THE TRANSPORT OF THE PROPERTY	qa	1741
vi.	88 - I A I A A A A A CHATTALA COCTACA TOTAL A CACACACACACACACACACACACACACACACACAC	δ.	1708
7	TATAAAACAGTGTTATAACAATTAALATTAACAACAAAAAAAAAA	qa ;	1801
	*C III DIID III DIII DIII WAA AAA AAA AAA AAA AAA AAA AAAA A	λō.	1768
) A	ASSANT STANDARD ASSANDARD	qu	1861
٢	OO BOOKERADEDEKKKKKKADEDEKEKKKKKKADEOOKOKKKAKKOLOOKOKEEOKEKKEEOKEKKEEOKEKEEOKEKEEOKEKEEOKEKEEOKEKEEOKEKEEOKEK	ςλ	1828
i de Grafi	CANNON ALTANIA TANIA TANIA 	qa	1921
	TEALCAM TOTAL TO A CONTROL OF THE STATE OF T	ΟŸ	1888
	TITATGAATTOTTAGAACTTOTAGAACTAATGAACTTOTAGAAGAATTGAAAAATTGAAAAATTGAAAAATTGAAAAATTGAAAAATTGAAAAAA	qu	1981
-	AAAGGATAGAAAATTTALCTTAAAAATAAAGATCTAGATGCAAGATTATTGGAT	QY	1948
	26 CONTROLLE	0.0	2041

```
1 GAÇAACAITITIÇATATGICITIATIGAGGGGGGGGGGGGGGGGGCCACAIA 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 GAAGGCAACTTGACAACAAAATGATAAAAGATTTTAGAACGATGTGAACATCGAATGATG 1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 TALCEGGGGTTAAATATTEETEAAGGTECTGTGTGTGAGGAGCGAGAATAGAAGAT (947
1 AAACGATACGAAGAAATTTATGTCTTAAAAATAAAGATCTAGATGCAAGATTATTTTTGGAT 1020
                                                                                                                                                                 8 AAAAGTAACCTTGATGAAGAGGTGAATGTAATTGCTGCACAGACTGCAGTTAGGACTGTT 1047
                                                                                                                                                                                                                                                                              8 ATGAACACTATCCAACAATTAATGATGAT111AAA1TCAGCAAGTGATCAACCTTCAGAA 1107
                                                                                                                                                                                                                                                                                                                                   1 ATGAACACTATCCAACAATTAATGATGATTTTTAAATTCAGCAAGIGATCAACCTTCAGAA 1200
                                                                                                                                                                                                                                                                                                                                                                                        8 AATCTGATFTGCFATTTTAACAACTGCACAGGAATGCAAAAGAAAGGAATGCTGAAAAGA 1167
                                                                                                                                                                                                                                                                                                                                                                                                                                             8 GTGAAGGATATAGGATAGATGTTTTAAAGAGAAATTTGGTAAAGGTGTGGGAGAGGTTGT 1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 TOCATGUITAAATUAGAAGAAGAATTAIGGATTGAAAATTTTAGGAAACTTCTGAAT 1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 TCCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGGAAAGTTCTGAAT 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 AGCAGAAGTACATCAGAATCITGALICIGGAACAGAIIIGICITICGGATGGAIICIG 1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 AATGIGILAATULAAAAGGILLIGALILILAGAAAGIGAAAGIITTATGAAAGGA 1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GAAGGTAATTGATAAGAAATGATAAAATAITIAGAAGGAIGIGAACAICGAAICAIG 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 GAATOOTTGGAIGGCICICAGAIICAGCIIIAIIIGAICIIATIAAAQAAICAAAGGAQ 1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 GGAGAAGGGAAGTGAFCAFCTTGAATGTGFTFTFTAATCTTGGTGTGGGAAATT 1707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8. AATGAGACTGGAGGAGATATGGATGTTT CYCCTGTAAGATCTCGAAAGAAAAAAGGTTGA. 1767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 AATCACACTGCAGCAGCAATAFGTTTGTCCTGTAAGATCTCCAAAGAAAAAAAGGTTCA 1850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 ACTAPGGGTGTAAAFFPTATGAAATGPAGAGAAGAAGGAACCFQAGCTTCCAGACTTCCAGACT 1827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 CAGAAGGCATTGAAATGTAGCTGTTTGAGTGTTTTATAAAAAAGTGTATGGGGTAGGG 1887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CAGAAGCCATTGAAATCTACCTCTTTTAATTTTTTTTAAAAAAGTGTAATGGGCTAGGC 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 TATCTCCGGGTAAAIACACITIGIGAACGCGIIGIGIGIGGAGCACCCAGAATIAGAACAI 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 ATCATCTGGAGCCTTTTCCASCACACCCGGAGAGGAGTAIGAACICATGAGAGAGAGG 2007
```

Tue Jan 21 10:03:45 2003

	2008	CATTIGGACCAAATTAIGATGITTCCATGITAGGCATATGCAAAGGAAAGG	2067
	206H 2161	06H CTITAATITCAAAATCATTGIAACAAGATTTOCTCTCTCTCTCTTGITTGIAGAGATTCAAGAGACA 212	2127 2220
<u> </u>	2128		2187 2280
	2188 2281	GEOTTOTOCAGAGACTGAAAACAAATTTTGCAGTATGCTLO.AO.AGGGCCCGTACC 	2247
	224H 2341	TTGTCASCAATACCTCATACTTCCTCGAAGCCTTACAAGTTTCCTAGTTCACCTTACGGGTTTCTCTACGTTTCTCATCATCCTCAAGCCCTTACAAGTTTCCTAGAAGTTTCCTAGAAGTTTCCTAGAAGTTTCCTAGAAGTTTCCTAGAAGTTTCCTAGAAGTTACGAAGTTACAAGAAGTTACGAAGTTACAAGAAGTTACGAAGTTACAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAA	2400
	2401	ALICCTODAGGAAGALCIAIATTGAGGCTGAAGAGTGCATATAAAATTGAGAAGGT 2 FELFELFELFELFELFELFELFELFELFELFELFELFELF	2367 2460
٠, ٠	2.468	CTGCCAACACCAACAAAAATGACTCCAAGATCAAGAATCTTAGTACTATTGGTGAATCA 	2427 2520
	2428	TPOSSACTICTGAGAAGTTCCAGAAATAAATCAGATGGTATGTAACAGGGACCGTGTG  - - - - - - - - - - - - - - - - - - -	2487
~ ^	2488	CTPAAAAGAACTOFTGAAGGAAGCAACCTGCTAAAGGACTGAAAAAACTAGGTTTGAT 	2547 2640
	2548	ATTGANGATCAGATGANGTGANGAGANGTANGTCTCGGGGGGGGTGCAAATTCAG HILLHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	2607 2700
× 5	2608 2701	CAGAAACTGGCAGAAATGACTTCTACTGGAATGCAAAAGCAGAAAATGATGAT  - - - - - - - - - - - - - - - - - - -	2667 2760
	255B	ABPATOGATACTERAAPAAGGAGAAATGAGGATCTCAGGACTTGGTGGACACTGT 	2727 2820
	2728 G 1 2821 G	GTATACT POGGATECATIGE CECTEACAGATGEGACTORGAGATECGGAGATECTOR FOR THE FILLE OF THE CONTROL OF THE FILLE OF THE CONTROL OF THE CO	2787 2880
	278H 2881	TTATGGCCACATITAATAFCTTCAGGTCTTTTGTGGATATAAAATGTGCAGATGCAATT  - - - - - - - - - - - - - - - - - -	2847 2940
<u> </u>	284B 244	OTH GGG GATLONIAACOACTIGAAAIGHIAGHGGTGTTATTATACAAGATGAAA FELLIH HELLIH GATLOGTGATGGTAAA	2907
	2908	ATCTTGTGTAAATGCTGCCATTTAAAAAGITGTAGGGGGTTGTTCSTCTTGCGAAGTAA 	2967
	1908	AATTGCTGGGTTTATGGATAGTAAGAGGGGGTAGAGTGGGGAGTGCTGATAAGGGGGAGGGTTTTTATGGTAAGAATGGGCGTAGAGTGGGAGTGCTGATAAGATAAGAATGGGCCTAGAGTGGGAGTGCTGATAAGAAAAGGGCCTAGAGTGGGAGTGCTGATAAGAAAAGGGCCTAGAGTGGGAGTGCTGATAAGAAAAGGGCCTAGAGTGGGAGTGCTGATAAGAAAAGGGCCTAGAATGGGAGTGGGAAAAAGGCCAGG	3027 3120
~ .	402H	OCCURTORACIAM HIGGORICH THORACOATATAGGIGALGTTIGCI CTTGTTTTTTTTT THEFFILE HIGHER TOTALATA	3087 3180

```
TITLE OF INVENTION: Process for Identilying Anti-Cancer Therapeutic Agents Using C
TITLE OF INVENTION: Gene Sets
FILE REFERENCE: 689290-77
                                                                                                                                                                                                                              3208 AAAAATGGATATTAGAAATTAGAAAAAAAATTACTAATLITTAGAGATTAGALTTTATT 3267
                                                                                                                                                               HILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITH 3540
                    3148 ATCTTCCAAATGCAATTTGATTGACTGCCCALTCACCAAAATTATCCTGAAATTCTCTCTGC 3207
                                                                                                                                                                                                               3268 TTACTATTGGAATCTGATATACTGTGTGTTTTTATAAAATTTTGGTTTTAAAAT 3327
                                                                                                                                                                                                                                                                                     122 CGGAGGACCIGCCICICCICAGGCTIGAGIIIGAAGAAAAAGAAGAACTIGAIIIIACIG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Indels 94; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3088 TAATTTATATGTATATTTTTTAATTTAACATGAACCCTTAGAAAATGTGTCCTATC
                                                                                                                                                                                                                                                                                                                                                          3388 CCTCAGAATGTAAAAGAACTTACTGATTATTTTCTTCALOGAACTTATGTTTTTAAATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96.9%; Score 3353.8; DB 9; Longth 4839; 97.3%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR FILING DATE: 2000-09-18
PRIOR FELLING DATE: 2000-09-18
PRIOR APPLICATION NUMBER: US/60/234,009
PRIOR TILING DATE: 2000-09-20
PRIOR APPLICATION NUMBER: US/60/244,014
PRIOR FILING DATE: 2000-09-20
PRIOR FILING DATE: 2000-09-20
PRIOR APPLICATION NUMBER: US/60/234,509
PRIOR APPLICATION NUMBER: US/60/234,509
PRIOR APPLICATION NUMBER: US/60/234,567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER - US/09/954,531
CURPENT FILING DATE: 2002-05-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 143, Application US/09954541 Patent No. US20020165180A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 97.39
Matches 3458; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEC 1D NOS: 1392
                                                                                                                                                                                                                                                                                                                                                                                                                               3448 GGATTATTGATAGT 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1111111111111
3541 GGATTA11GALAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Weaver, Zoe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 3
US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Homo
US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 4839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE:
                                 q
                                                                     οy
                                                                                                     qq
                                                                                                                                        ò
                                                                                                                                                                            q
                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                          Q
2
                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ć
```

á á	18.	CALIAIGICAGAAATTAAAGATACCAGATCATGAGAGAGAGAGGGTTGGGTT	cc 1
	, ~	CALLACTOR AND TRANSPORT OF CALCACTOR CALCACTOR CALLACTOR CALCACTOR	233
	173	AGAAAGTI FOA FO POLOGA LOGAQTA PTGGGAAGFTFATATTO AAAAAAAAAAGTGT -	
	4 3 4	GOGGAA ICTGTATGTATATTGTAGAGTAGATGAGATGTCGTTCACTTTTACTG	268
	269	AGCTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAAATTC 	
	129 551	ATACCASTACCAAACTICATAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTTTTTTTT	388 612
3 A	489	ITGCACTCTTCAGCAAATTGGAAAAGACATGTGAACTTATATATTTGACACAACCCAGGA -	448
	449	GITCGALAICTACTGAAATAAATTCTGAATTGGTGCTAAAAGTTTGTTGGATGACATTTT   GITCGALAICTACTGGAATAAATTGTGAATTGGGATGACATATT   GITCGALAICTGGAATAAATTGTGAGATGACATATTT	508
	504	TATTAGETAAAGGGAAGTAFTACAAAGGAAGATGATGTGGTGATTTCALTTCAGTTAA E	568
	563 243	TGCTATGTGTCCTTGACTATTTATAAACIGLCACCTGCCAGITGGCCAAGAAGCAT	628 852
	629 853	ATAAAAGGGGGTGTTAFAGGGATGATGGTTGAGGTGGAAGGGGAGGGGAGGTGAGAAGA	688 912
	6.89 413	GBAGTGCACGGATAGCAAACAACTAGAAAFGATACAAGAAFFAFFTGAAGFFFTCTCTGTGFA 	748
	749 474	AAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATACCTT.	
	809	THGFAACATCTAATGGACTTGCAGACGTTGAAAATCTTTCTA : 	868 1092
	869 1093		928 1152,
	929	ATGATAAAACTCTTCNAACTGATTCTATAGACAGTTTTGAAACACAGAAACACCAGGAA 9 	988
	389 1213	AAAGTAANYTEGA GAAGAGGAATGTAATTOCTGCACACACTGGAGTAAGACTGTTATA TA T	1048
	1649	IGAACACIALCCAACAATTAAIGAIGATTTTAAATTCAGCAAGTGATCAACCTTCAGAAA I 	1108
	1109	ATCTGATITC°TATTTTAACAAAAAGAAATCCAAAAGAAAGTATACTGAAAAGG J 	1168

1513 CCATGCTTAAATCAGAAGAACGATTATCCATTCAAAATTTAGCAAACTTCTGAATG 1572 1469 AFGEGTTAATTTAAAAGCUINGAIITITACAAASIGATCGAAAGIITTAECAAAGCAS 1528 1393 TGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAGCTGTGGGACAGGGTGTGTG 1452 1289 CCATGCTTAAAFCAGAAGAAGAACGALTATCCATTCAAAATTTTAGCAAACTTCTGAATG 1348 1349 ACAACAPTTTTCATATGTCTTTATTGGCGTGGGGCTCTTGAATGGCCACATATA 1408 1409 GCAGAAGTATATATATATATATATATATAGAACAAGAATITAGATITAGAATTATAGA 1468 1693 ATGTGTTTAATTTAAAAGGTTTTGAITTTTAAAAGTGAAGGTTTTTATGAAAGGGG 1752 1529 AAGGCAACTTGACAAGAAATGATAAAAGATTTAGAAGGATGTGAACATGGAATGATGG 1588 1753 AAGGCAACTTGACAAGAAAAATGATAAAAACATTTAGAAGGATGTGAGAGATGGATTGATGG 1812 1589 AAICCCIIGCAIGGCICICAGAIICACCIIIAIIIGAICTIATTAAACAATCAAAGGACC 1648 1649 GAGAAGGACTAATTAATTTGAATTTGTTGTCTCTTAATTTCCTCTCCTCTCCAGAATA 1708 1709 ATCACACTGCACCAGATATCTTTCTTTCTTCTGTAGATCCCAAGAAAAAAGGTTCAA 1768 1829 AGAAGGCATTGAAATGTAGGTGTGTTTTGAGTTGTTTAIAAAAAAGTGTALGGGGTAGGGT 1888 1889 ATCHCCCCTAAATACATTTGTGAACGCCTTCTGTGAGGCACCCAGAALTAGAACALA 1948 2189 TOTTOATGPAGAGAATGAAAAGAAATATTTGGAGTAFGITGGAGGGGGGGGGTACCT 2248 2413 ICTTCATGCAGAGACTGAAAACAAATATTTGCAGTAGGTTGCAGGCGCGCCTACCT 2472 2249 TGTCACCAATACCTCACATTCCTCGAAGCCCTTACAAGTTTCCTACTTCACCCTTACGGA 2308 1453 TCGAAATTGGATGACAGCATACAAACTTGGAG FEGGTTGTATTACCGAGTAATGGAAT 1229 TCGABATIGGATCACAGCGATACAACTICGCTIGTALIACCGAGIAAIGGAAI 1993 CTACCCCTGTAAATTCTACTGCAAAGGAAGGAAGGAAGGGTGGAGGG 2053 ASAAGOTATISAAATCIACCICICIICACIGITITATAAAAAGCGTGTGTGGGCTAGCCT 2113 ATCTOGGOTAMATAPACTTTSFGAPSPPTPISTCTSASCACCAGAATTAGAACATA 2009 ATTEGACTAAATTATGATGTTTTTTTTTTTTTTTTGTAAAGTGAAGTGAAGTGAAGT 2233 ATTTGGACCNANTTATGATGTGTTCCATGTATGGCATAGGGAAAGTGAAGGAFATATAGA 2129 TCAAAGGTGTTTTGATCAAAGAAGAGGAGTATGATTGTATTATAGTATTCTATAACTCGG 2173 TOATICTIGGACONTITTITIONAGAAAGAAATIGACTATIGAACTCATIGAGAGAGAG 2069 TTAAATTGAAAATGATTGTAAGAGGATACAAGGATGTTGGTGATGGTGTTGAGGAGACAT 9 g g ò qq qq õ qq ô 9 급 g 5 qq qq ò ô ŏ â ò 3 Ś

Tue Jan 21 10:03:45 2003

```
2473 TGTCACCAATACCTCACATTCCTCGAAGCCCTTACAAGTTTCCTAGTTCACCGAATACGGA 2532
                                                                     2309 TTCCTGGAGGGAGGATATATTTCACCCTGAAGAGTCCATATAAAATTTCAGAAGGTC 2368
                                                                                                                                                                2369 TOTCAACACTAACAAAATGACTGCAAGATCAAGAATCTTAGTAAGAATTGAT 2428
                                                                                                                                                                                      2429 FCGGGACTTCTGAGAAGTTCCAGAAATAAATCAGATGGTATGTAAAAGCGACCGTGTGC 2488
                                                                                                                                                                                                                                                                                                                                                      2489 TCAAAAGAAGTGGTGAAGGAAGTAAGGGTGGTAAAGGAGTGAAAAAGTAGGGTTTGATA 2548
                                                                                                                                                                                                                                                                                                                                                                                                   2712 TCAAAAGAAGTGCTGAAAGGAACCTCGTCCTAAAACCACTGAAAAAAATACGCTTTGATA 2772
                                                                                                                                                                                                                                                                                                                                                                                                                                             2549 ITGAAGGATTAGAAGGAGAGAGAGAGAGAAGTAAAGATGTGGGAGAGAGAGAGAATTTGAGG 2608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2773 FIGAAGGALGAGALGAAGGAGAGALGGAAGTAAACATGIGGGAGGGAGAGIGGAAATTTGAGG 2832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2669 GCATIGGATACCTCAAACAAGGAAGGAAATGAGGATCTCAGGACCTTGGTGGACACTGTG 2728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2893 GCATGGATACCTCAAACAAGGAAGAGAATCAGGAATCATCAGATCTCAGAGAACACTGTG 2952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2729 TACACCTCTGGATTCATTGTCTCTCACAGAIGTGACIAIAAGITTCCCAGGTTCTGTT 2788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2789 TATGGGGAGATTTAATATGTTCAGGTGTTTTTGTGGATATAAAATGTGCAGATGGAATTG 2848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2849 ITTROGRATIOCLAAGOMANTIGAAATGTTATTGTTATTTATAGAAGATTGAAAA 2908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2909 TOTIGITAAATOOTGOOATITAAAAAGTIGIAGOAATITOTTTOOTGITOOAAGTAAA 2968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2969 ATTGTGTGTGTGTATAGGATAGIAAGAATGGCCCIIAGAGIGGGAGICCIGAIAACCCAGGC 3028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4193 ATTGGTGTGTGTATAGAIAAAAAIGGGGGTGGGAAGGGGAAGGGGAAAAGGCAAAGG 3252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80.29 CHCHCIGACTACHTITGCCT FCTTTTGTAGGTGATGTTTTGCTCTTGTTTTATT 3088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4254 CTGTCTGACTACTTTGCCTTCTTTGTAGGATAIAGGTGATGTTTGCTCTTTTATT 3312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1089 AATTIATATGTGTGTTTTTTTTAATTTAACGTGAACGCCTTAGAAAAGTGTGTCTATGTA 3148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4149 TCTTCCAAATGCAATTTGATTGACTGCCCATTCACCAAAATTATCCTGAACTCTTGCA 3208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3209 AAAATGGATALTATTAGAAATTAGAAAAAATTACTAATTTTAGAGATTAGATTTTATTT 3268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4433 AAAATGGATATTATTAGAAATTAGAAAAAAAATTACTAATTTTACACTTAGATTTTATTT 3492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2269 TACTATTGGAATCTGAIATACTGTGTGTTTTATAAAATTTTGCTTTTAATTAAATA 3328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3493 TACTALLIGGAATCLGATALACLIGIGTGCTLGTTTTAAAAATTTTGCLTTTAATTAAATA 3552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25.4. TTOCTGGAGGAACATCTATATTTCACCCCTGAAGAGTCCATATAAAATTTCAGAAGGTC 2592
                                                                                                                                                                                                                                                                                                     2653 FOGGGACITCTGAGAAGITCCAGAAAATAAATCAGATGGTATGIAACAGCGAGGGTGTGC 2712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                ŝ
                                                                                                                                                                                                          ÷
                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>-</u>2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
```

```
3389 CTCAGAATGTAAAAGAACTTACTGATTATTTTGTTCATCCAACTTATGTTTTTATAAATGAG 4448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Hong-Ji
Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96.8%; Score (451.6; DB 10; Length (554;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE DESCRIPTION: SEQ 1D No: 50:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILLING DATE: 22-Dec-1969 CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                    Sequence 50, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 3554 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SHOUFINGE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7..2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97.38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   77210-4433
                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                      Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
                                                                        3449 GATTATTGATAGT 3461
                                                                                                           3673 CATTATTCATAGT 3685
                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: TX
                                                                                                                                                                                   08 - 09 - 469 - 522 - 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-469-522 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 3457,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sest Local
                                                                                                                                                                   RESULT 4
 ĉ
                                   Q
                                                                        ô
                                                                                                         <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
```

860 33 33 00	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	7 7 7 20	7 80 47 40 00
1 - 2 2 6		2 44 2 54 1 50 1 60 1 60 1 60	A 72 A 72 A 72 68 C 68 C 68 C 74 F 74 F 74	T 807 T 900 T 960 T 960 T 960 T 960 T 927 T 1020	
COSSAGNACIOCOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOT	1636GAAICTGIAICTTATTGCAGCATCTGACTGAGATGTGGATTGACTTTACT 1636GAAICTGIAICTTATTGCAGCAGTTGACCTGGGGGATAGTGGTTGACTTTACT  GAGCTACAGAAAAAAAATCAGTGCATAAATTCTTTAACTTACTAAAAGAAATT  GAGCTACAGAAAAAATCAGTGCATAAATTTTTTATTTTTTAACTTACTAAAAGAAATT  GAGCTACAGAAAAATTAATGTCAAAAATTTTTTTTTT	TTCAGG    +    TTCAGG   +      +       +	wTATATATATTATTANTANTITIATTAAACTATGAGGGGGGGGGGGGGGGGGGGGGGGG	NEMACATGMATCH MAACA (SAA 101 MATCH	AAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAGAACTTTTTTTT
	234 301 268 361 328 428		568 661 628 721 688	748 808 901 901 468	,28 1021 988 1081 1048 1141
\$ q \$ q \$ q q \$ q q q q q q q q q q q q	5 5 5 6 5 6	6 d d d d d d d d	40 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 d 3 d 3 d	

1921 GASAAGPCATGAAATCPAPPCPCTTTCAPFCTTTATAAAAAAGISFALGSSCIAGGC 1980 2221 TTCAAACCTCTTTTGATCAAACAACAGGGTATGATTCTATTATAGTATCTATAACTGG 2280 1408 AGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTGCCATGGATTCTG 1467 1168 CHGAAGGATAGATACATCTTTAAAGAGAAATTTGCTAAAGCTGTGGGACAGGGTTGT 1227 1228 GEGRAANTGESATTATAGGGATACAAACTTGGAGTTGGCTTGTATTAGGGAGTAATGGAA 1287 1321 GEGGAAATEGGAEGAGGGATAGAAAGETEGGAGTEGGGEFGTATEACCGAGEAAIGGAA 138U 1288 TCCATGCTTAAATCAGAAGAAGGAITAICCATTCAAAATTTTAGCAAACTTCTGAAI 1347 1348 GACAACATETTECATATGECETTATTGGGGPGGGCTTTGAGGTTGCPAATGGGGAGALA! 1407 1441 GACAACATTTTCATATGTGTTTATTGGGGGGGGGTGTTGAGGTTGTAATGGCACATAT 1500 1468 AAIGIGCITAAIIITAAAAGCTITGAIITITAGAAAGTGAAGGAAAGTTTTAIGAAAGGA 1527 1561 ARTGIOCTIDARTITAAAAGCTITGAITHIFA THA GAAGGAAAGHHAATGAAAAGHHAAAAAGAA 1520 1528 GAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAAGGATGTGAACATCGAATCATG 1587 1588 GAATCCCTTGCAIGGCICICAGALICACCITTATTGGTCTTATTAACAATCAAAGGAC 1647 1648 PRABARARAN MANTEALCANTERALCISCIFICICATATORICAL 1707 1708 AATCACACTOCAGCAGATATGTATCTTTCTGTSTAAGATGTCCAAAGAAAAAGGTTGA 1767 1801 ANTCACACIGCAGCAGAIAIGIAICTTCTCCIGIAAGATCTCCAAAGAAAAAAGGIICA 1860 1768 ACTACGCGTCTAAATTCTACTGCAATGCAGAGAAGAAGAAGAAGAAGAAGAAGAAGGTCCAGAGC 1827 1828 CASARACATIGAAATCIACCICTCITICACTGIIITAIAAAAAGIGIAICGGCIAGC: 1887 1948 ATCATCTGGACCCTTTLCCACCACACTGCAGAATGACTATGAACTCATGAGACACACG 2007 2161 CTTAAATTCAAAATGTATGTAACAGCAFACAASGAICTTCCTCATGTTCAGGAGACA 2220 2128 TTCAAACGTGTTTFGATCAAAGAAGGGAGIATGATTGTATTATAGGTATTGTATGTGT 2187 2008 CATTTGGACCAAATIATGATGTGTCCAIGIAIGGCATATGCAAAAGIGAAGAIAIAGAC qq . ; c C Ò a G d ò g qq Š ó οğ ò ò g ò £ 5 ò ò ò

```
2281 GICTICALGCAGAGEGAAAAAAATATIFEGAGTATIGCAGCAGCAGGCGGGTAGC 2340
                                                   2401 ATTCCTGGAGGAAATGTATTTCACCCTGAAGAGTCCATATAAAATTTCAGAAGGT 2460
                                                                                                                                                                                                   9121 CCTGTCTGACTACTTTGCCCTCTTTTGTAGCATATAGGTGATGTTTGCTCTTGTTTAT 3180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8148 ATCTTCCAAATGCAAATTGATTGACTGCCCATTCACCAAAATIAFGCTGAAACTCTGTGC 8202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3301 AAAAATGGATAITATTAGAAATTAGAAAAAAAAATTACTAATTTTACACATTAGATTTTATT 3360
                                  2248 TIGICACCAATACCICACATICCICGAAGCCCTIACAAGITICCTAGTACTICACCCTIACGG 2307
                                                                                                                                                                                2.468 CTGCCAACAACAAAAATGACTCCAAGATCAAGATCTTAGTATCAATTGGTGAATCA
                                                                                                                                                                                                                                                    2428 TTGGGGACTTCTGAGAAGTTCCAGAAAATAAATGGAGTGGTATGTAACAAGAGGGACGTGTG 2487
                                                                                                                                                                                                                                                                                      2548 ATTGAGGATGAGATGAAGGAGGAGGTAAACATCTGGCAGGAGAGTGCAAATTTGAG 2607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2568 AGCATGGATACCTCAAACAAGGAAGAAATGAGGAFGTCAGGAGGTTGGTGGAGGTGT 2727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2728 GIAMACTCTGGGATTCATTGTCTCACAGATGTGACTGTAACTTTCCCAGGTTCTGT 2787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2788 TIATGOCCACATITAATATCTTCAGCTCTTTTTGTGGATATAAAATGTGCAGAGGAATT 2847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2881 TTATGGCCACAFITAATATCTTCAGCTCTTTTTGTGGATATAAAATGTGCAGATGCAAATT 2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2848 OTTIONALIONIAAROOMATIOAAAIOTIAGAATOTIAGATIOTIATATATATATATAGAAA 2907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2908 ATCITGTGTAAATCCTGCCATITAAAAAGTTGTAGGAGATGTTTGCTTCCCAAAGTAA 2967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2968 AATTGCTGTGTGTATGGATAGTAAGAATGGCCCTAGAGTGGGAGTCCTGATAACCCAGG 3027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3028 OCTOTICACACIACITICCOTICITITICIAGCATALAGGIGATGITIGCICITICITITITAL 3087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8088 TAAFITTATATGTATATTTTTAATTTAACATGAACACCTTAGAAAAFGTGTCCTATGT 3147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3208 AAAAATGGATATTATTAGAAATTAGAAAAAATTAGTAATTTTAGAGATTTAGATTTATT 3267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4268 TIANTATIGGAAICIGATATACIGIGGIGILITIATAAAAITITGCITITAAITAAAI 3327
                                                                                                        2.108 ATTCTTGGGGGGAATCTATATTTGGGGGTGAAGGTGGATATAAAATTTGAGAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ĩ
                                                                                                        5
                                                                                                                                        Ξ
                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                  ã
                                                                                                                                                                                                                                                                                                                                                       =
                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \frac{2}{3}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
```

```
3421 AAAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACTACTGAAACAGATTTCATA 3480
3328 AAAAGCTGGAAGCAAAGTATAAGCATATGATATGATACTATGATACTGAAAGAGATTTGATA 3387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         168 ACCTGATTT1AC1GCA11ATG1CAGAAAT1AAAGA1ACCAGATGAGAGAGAGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Indels 93; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3388 CCTCAGAATGTAAAAGAACTTACTGATTALLTTCTTCALCCAACTTALGTLTLLAAATGA
                       TITLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94.8%; Score 4247.8; DB 10; Length 4455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CPERATING SYSTEM, FC 00S/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE DESCRIPTION: SEG ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                        Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                 US-09-469-522-28
; Sequence 28, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 3455 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: "Unknown"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 512/474-7577
INFOPMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Hibler, David W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97.28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
STRANDEDNESS: singl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7..2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIF: 77210-4433
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                   lu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                            Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 97.2%
Matches 3352; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear
                                                                                                                                                           3448 GGATTATTGATAGT 3461
                                                                                                                                                                                                    3541 CCATTATTCATAGT 3554
                                                                                                                                                                                                                                                                                                                       Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                RESULT 5
                                                                      Joy.
õ
                                      q
                                                                                                                   <u>a</u>
                                                                                                                                                              ò
                                                                                                                                                                                                    <del>С</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
```

						•												
128		254 248	314	374 368	434	494	554 548	614 608	674 668	734	794	854 848	914 908	974	1034	1094 1ពិគិធិ	1154	1214
ACCIGATITACICATATATATAAAAAAAAAAAAAAAAAAA	TOGLIG	GAAAAAGGAACTGTGGAATCTGTATCTTTTTTGCAGCAGTTGACCTA	5 GITCACIIIIACIGAGCIACAGAAAAAAAAA   1   1   1   1   1   1   1	5 ACTAAAAGAAATTGATAACAGTAACAAAGTIGATAATGCTATGTGAAGAGATGTGAAGAA 	5 STATGATGTATTGTTTGTACTFTTCAGAAATTGGAAAGGGGATGTGAACTTATATTTT	5 GACACAACCAGCAGTFGATATFTACTGAATAAATTCTGGATTGGTGATAAAGTTTCTG 	5 FEGDA CACATETTATEACCAAAGGGGAAGTATTACAAAGGGAAGATGATGATGGTGGTGATETTETTETTATEAAGGGGAAGTATACAAATGGAAGATGATTATTATTAGTAAAGGGGAAGTATTACAAATGGGGAAGATGATTACAAATGGGGAAGAGTGATTACAAATGGGGAAGAGTGATTACAAATGGGAAGATGATTACAAATGGAAGATGATTACAAATGGAAGATGATTACAAATGGAAGATGATTACAAATGGAAGATGATTACAAATGGAAGATGATTACAAATGGAAGATGATTACAAATGGAAGATGATTACAAATGGAAGATGATTACAAATGGAAGATGATTACAAATGGAAGATGATTACAAATGATAAATGATGAAGATGATAAATAA	5 IECATITCAGITAATGCTATGTGTOCITGACIAITHAATAAAATCTCAGCCTGCATGET 	SCT HH GCT	5 OCGARATICAGAACAGGAGTIGCACGGATAGCAAACAACTAGAAAATGATACAGAATTATT 	10 5	AAATTT  - - - -  - - - -	5 ISAAAATCITICTAAACGATACGAAGAATTTAICITTAAAAATAAAGATCTAGATGCAAG FELFELLETTETTTTTTTTTTTTTTTTTTTTTTTTTTAAAATAAAGATCTAGATGCAAG	S ATTAIT	GAGAACA 	5 AGTTAGGACIGITATGAAGACTATCCAAGATTAATGATGATGATTTTTAAATTCAGGAAGTGA 	TCAACCTTCAG	TAGGA
Ģ	22H 129	2.45	249	315	375	4.29	4 4 8 9	55 55 54 4	615 609	6.75	7 2 3	\$4., \$4.,	858 84.	915 909	47.5	1035 1029	1095 1089	1155
40	5 8	\$ £	多童	형 물	3 g	ĝ ĝ	5 g	S ±	\$ \$	5 43	7 8	S = =	5 1	à â	5 E	ç. E.	\$ 3	Ś

1575 ACATGGAAGGGAAGCCTTGGATGGCTCTCAGATTCACCTTTAFFTGATCTTATTAA 1634 1149 TATACTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAAGCTGT 1208 1215 GOGACAGGGTTGTGTGGAAATTGGATCACAGGCATACAAACTTGGACTTGGTTTGTATIA 1274 4275 CCGAGTAATGGAATCCATGGT1AAATCAGAAGAAGAAGGATFATCCATTCAAAATTTTAG 1334 1395 AATGGGGAGATATAGGAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTT 1454 1455 CCCATGCATTCTGAATGTGCTTAATIIAAAAGCCTTTGATTTTTACAAAAGTCATCCAAAG 1514 1515 TTTTATCAAAGGAGAAGGCAACTTGACAAGAGAAAAGATAAAAAGATTTAGAAGGATGTGA 1574 1509 TITTATCAAAGCAGAAGCAACTTGACAAGAAAATGATAAAAACATTTAGAACGATGTGA 1568 1569 ACATCGAATCATCGAATCCTTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTA 1628 1689 TCCTCTCCAGAATAATCACACTGCAGAGATATGTATCTTTTCTCTGTGTAAGATCTCCCAAA 1748 1755 GAAAAAAGGTTGAAFTAGGGGTGTGTAAATTGTAG GGAAA GGAGAGAAGAAGAAGCAG 1814 1815 ANCITCOMARCARARGCALISAMATCIACCICTITCACTCTTTALAAAAAGT 1874 2169 AFFCTAFAACTCGGTCTTCATGCAGAGACTGAAAACAAATTTTGGAGTTGCAG 2228 2229 FERRENCE TRACT BATCA CANADA CONTRACT CONTRACA CONTRACA CANADA CONTRACTA 2055 GAAGAATATAGACCTTAAATTCAAAATGATTGTAACAGCATACAAGGATGTTCCTCATGC 2114 2235 CAGGCCCCTTACCTTIGTCACAATACCTCAAAGACCCTTACAAGTTTTGCTAG 2294 1269 CCGAGTAATGGAATGCTTAAATCAGAAGAAGAAGATTATCCATTCAAAATTTAG 1809 ACCPPICAGAGGAAGGATIGAAATGTACCICITICACTCTTTTATAAAAAGT 1875 GTATORGOTAGGGTATGTGGGGTAAATAGAGTTTGTGAAGGGGTTOTGTGTGAGGGGTOT 1935 AGAATTAGAAGATATGATGTGGAGGGTTLIGGAGGAGGGGGGGAGAATGAGAAGT 1989 CAMBAGAGAGAGATTTGGACCAAATTATGATGTTCCATGTATGCCATATGCAAAGT 2115 TOTTGAGGAGATTGAAAGGTGTTTTGATGAAAGAGGGGGGTATGATTGTATTALAGT 2109 TGFFFAGGAGACATTFCAAACGTGTTFFGATGAAGAAGAGGAGTATGATFGTATFATACT 2175 ATECTATANCEGGECTECALGCAGAGACTGAAAAAAAATAFTFIGCAGTATGCTTCCAC . О. QO. qn q δŏ qq q ò qq δ q  $^{\circ}$ QQ δy 5 οy ò qq g ò Q C ŝ å õ

Tue Jan 21 10:03:45 2003

3435 TGTTTTAAATGAGGATTATTGATAGT 3461

φ 2 3

```
2955 TCTTOMAAATAAAAFIGGTGFGGTTFAFGGATAGTAAGAAFGGGGGTAGAGTGGGAGFG 3014
                                                                                                                                                                                                                                                                                                                                            2355 AATTTCAGAAGGTGTGGCGAACACAAAAATGACTGCAAGATCAAGAATCTTAGTATC 2414
                                                                                                                   2449 AATTTCNSAAGGTCTGCCAACACCAAAAATGACTCCAAGATCAAGAACTTAGTATC 2408
                                                                                                                                                         2415 AATTOSTGAATCALLCGGGACTICTGAGAAGTTCCAGAAATAAATCAGATGGTATGTAA 2474
                                                                                                                                                                                                   25/45 ACTACGCTTTGATATTGAGGATCAGGAGGAGGAGAGAGAAGAAAAGATCTCCCCAGGAGA 2594
                                                                                                                                                                                                                                                                                                                                                                                                2595 GICCAAATITCAGCAGAAGIGGGAGAAJGGCITCTAGIGGAAGAGGAAGAAGGA 2654
                                                                                                                                                                                                                                                                                                                                                                                                                                        2589 GTCCAAATTTCAGCAGAAACTGGCAGAAATGGCTTCTACTCGAACACGGATGCAAAAGCA 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2655 GAAAATGAATGATAGCATGGATACCTCAAACAAGGAAAATGAGAAATCTCAGGGACCT 2714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2709 TOGTGGACACTGTGTACACCTCTGGATTCATTGTCTCTCACAGATGTGACTGTATAACTT 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2775 FOCCAGGITOTGITTATGGCGACATITTAALAFGTTCAGGICTITTTGGGATATAAAATG 2834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2835 TGCAGATGCAATTGTTTGGGTGATTCCTAAGCCACTTGAAATGTTAGTCATTGTTATTTA 2894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2895 TACAAGATIGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCAGATTGTTTCC 2954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2889 TACAAGATIGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCAGATTGTTTCC 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2949 TOTTCCAAAGTAAAATTGCTGTGCTTTATGGATAGTAAGAATGGCCTAGAGTGGGAGTC 3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4015 CTGATAACCCAGGCCTGTCTGACTACTTTGCCTTCTTTTGTAGCATATAGGTGATGTTG 3074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8075 CTCTTGTTTTATTAATTTATATGTATATTTTTTTAACATGAACACCCTTAGAAA 3134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1135 ATCHATOTIATOTATCHTCAAAIGCAATHTGATHGACHGCCCAFTCACCAAAAFFAFCC 3194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4129 ATGTGTCCTATCTACCTACCAAATGCAATTTGATTGACTGCCCATTCACCAAAATTATGC 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3195 TGAACTCTTCTGCAAAAATGGATATTATTAGAAAATTAGAAAAATTACTAATTTTACAC 3254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3189 IGAACICLICLGCAAAAAJGCATAITATTAGAAATTAGAAAATTACTAATTITACAC 3248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3255 ATTAGATTTTATTTTACTATT@AAATCTGATATGATGTGTTGTTGTTTATAAAATTTTG 3314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1315 CITITIAATITAAATAAAAGCIGGAAGCAAAGTATAACCATATGATACTATGATACTACTGA 3374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2295 TTCACCCTTACGGATTCCTGGAGGAACATCTATATTTCACCCCTGAAGAGTCCATATAA 2354
                                                                                                                                                                                  S
                                                                                                                                                         \frac{1}{2}
                                                                                                                                                                                               ã
                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                    ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
```

```
234 GGTCGACCTAGATGAGATGTCGTTCACTTACTGAGCTACAGAAAACATATAGAAATGAG 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  294 IGTCCATAAATTCTTTAACTTACTAAAAGAAATTGATACCAGTACGAAGTTGATAATGC 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96 GGTCGACCIAGATGAGAIGICGTICACITITACIGAGCIACAGAAAAAACAIAGAAAITCAG 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       354 TATGTCAAGACTGTTGAAGAAGTATGATGTTTTGCAACTCTCAGCAAATTGGAAAG 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Honedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93.3%; Score 3228; DH 10; Length 3323; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     c`
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown.
                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Arnold, White & Durker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE DESCRIPTION: SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 09/026,459
3429 IGTTTTTAAAFGAGGATTATTGATAGT 3455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                            Sequence 38, Application US/09469522
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93.3%,
100.0%; Pre
                                                                                                                                                                                                                                                                                                           PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  < Unknown.>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                           STREET: P.O. BOX 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 48: SEQUENCE CHARACIERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2559
                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 51
                                                                                                                                                                                            Xu, Hong-Ji
                                                                                                                                                                                                                      Hu, Shi-Xuc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 3228; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION:
                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                  RESULT 6
US-09-469-522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-469-522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

(G 275 (C 473 (C 335	2A 533 	VT 593 	4 653  -   515	TT 713 1 TT 575	iA 773  -   635	C 833 1 C 695	IA 893 I 755	ମ	A 1013     A 875	T 1073   T 935	G 1133     995	A 1193 A 1055	A 1253 	'G 1313 	T 1373   T 1235	A 1433 	A 1493  -  -   1355
AATTGGAAA AAATAAATT            AAATAAATT	AAGTATTAG 	ACTATTT              ACTATTTT	IACCCATTA            IACCCATTA	CAAAACAA( 	ATATAGATO               ATATAGATO	SACTIGIA 	FTTATCTT 	AGACTGATT                AGACTGATT	AAGAGGTG1 	AATTAATGA 	ITAACAACI 	ACATOTITI 	AGCGATACA 	AAGAAGAAC             AAGAAGAAC	IGTCTTTA] 	AGAATETTE 	AAGCCTTTC AAGCCTTTC
rgtrgasga Fatctacts Fatctacts	7.TAAAGGGG 11111111 3.TAAAGGGG	STOTOCTTG	AGCTGTIA 	ZACGGATAG HILLIIII ZACGGATAG	NTGAATGTA                NTGAATGTA	VITCICITG	ACGAAGAAA                   CGAAGAAA	VAACTETTE TITITI VAACTETTE	WCTTGATG          	TATCCAAC TITTITT	TTCCTATI 	VFATAGGAT 	TGGATCAC 	TAAATCAG             TAAATCAG	TTTTCATA 	TACATETE THILLI TACATOTO	TAATTTAA              TAATTTAA
216 IALGECAAGACTGTEGAAGAAGTGATGATGTTGTTTGTTTTGT	TTTATTAG             TTTATTAG	AATGCTATA 	AIAIAAAA 	CAGGAGTGG 	TAAAGAACI  }        TAAAGAACA	TITTAIGA/           TITTAIGA/	TAAACGAT/             TAAACGAT/	TCATGATA)            TCATGATA)	AAAAAGTAZ                AAAAAGTAZ	TATGAAGAG 	AAATCTGA1 	AGTGAAGG                       AGTGAAGG	TGTGGAAA! TTTTTTT	ATCCATGCT 	TGACAACA)             TGACAACA)	TAGGAGAAG 	GAATGTGCT 
TCATCTATT ACACCCAG LITTITITI	ATCACATT	ATTTCAGTT 	TAAAGAACC TITITITI TAAAGAACC	AGGTCAGAA HELLILLI NGGTCAGAA	NGTTCTCTG 	TTTATACC              TTTATACC	AAATCTTTC 	VIIIIIGGA VIIIIIIII	VACACCACG ITITITITI VACACCACG	TAGGAÇTGT HILLILLI TAGGAÇTGT	ACCTTCAGA 	VTGAAAAG UTGAAAAG	AÇAĞĞĞTTĞ 	NITAATGGA 	NCTTCTGAA  - - - - - - - - - - - - - - - - - -	CCCACATA           cccacata	TGGATICT 
AAGAAGTA TATTGAGA 	G FTFFFFFG                         GTTFFFFG	GTGATTTC? 	AIGIIGCI 	CCCAGGCC/ TTTTTTT CCCAGGCG	ATTATIGA FILLILL ATTAFICA	TTCAAAAA           TTCAAAAA	GAGGTTGA/               GAGGTTGA/	GCAAGATT/ 	ACACAGAGI 	ACTOCAGII 	AGTGATCA/ 	GAAAGTATZ 	G@T@T@G@Z 	TATTACCG/                  TATTACCC/	TTTAGCAN           TTTAGCAN	GTTCTAALG 	TOTATOCO 
ACACTETTC SAACTTATA SAACTTATA	TGCTAAAA TTGCTAAAA	ATGATCTG 	CACCTCCC	PTEGAACA 	ATACAAGA 1111111 ATACAAGA	ATGITIAI            ATGITIAI	GACTTCCA                  GACTTCCA	ATCTAGAT 	GTTTTGAA 	CTCCACAC HILLIII CCTCCACAC	ATTCAGCA 	ATCCAAAA HILLIII ATCCAAAA	TTGCTAAA TTTGCTAAA	TICGCITG 	TTCAAAAT           TTCAAAAT	CTCTTGAG 	CAGATTTG 
TATGTCAA GACATGTC                     GACATGTC	FGCAFFGC (TTTTTTT TGCATTGC	AATGGAAG TITITI AATGGAAG	TAAACTCT !!!!!!! TAAACTCT	rggricad                     	AGAAAATO 	GGTGAAAA	ATCIAATC ATCIAATC	AAATAAAG   {                   AAATAAAG	TATAGACA              TATAGACA	IGIAALIG IGIAALIG IGIAAIIG	GATTITAA	CACAGTGA CACAGTGA	AGAGAAA1 	ACTTGGAG 	ATTATCCA 	CHATTER CONTRACTOR CON	TTCTGGAA [[]][]][]] [TCTGGAA
216 414 276	474 336	534 396	594 456	554 516	714	774	834 696	894 756	454 816	1314 876	1074 936	1134	1194	1254	1314	1374	1434
a 2 a	55 25 26	à à €	\$ \$	5. 2. 2. 3.	हें हैं	숙	9 Q	9 G	주 역 <u>업</u>	5 6 2	\$ £	र्दे हैं	हें है	5 g	5 c	\$ 65 B	हें हें

```
1554 AAAAGATTTAGAAGGATGTGAAGATGGAATGGAATGGTTGGGATGGGTGTCAGALTG 1613
                                                                                            1776 AGGCCTTCTGTCTGAGGACCAGCAGTTAGAACATATCATCTGGACCCTTTTCCAGCACAC 1835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2016. GGAGTATGATTTTATAGTATATTTTTATAAGTGGGTCTTCATGGAGGAGTGAAAAGAAA 2075
                                                                                                                                                                                                                                                                                                                                            1596 PPCPCCPCCPAAGAPCPCCAAAGAAAAAGGPPCAACTACGCGPGFAAATTCTACTGCAAA 1655
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1854 PTCACTGTTFTTATAAAAAGTGTAFGGGFTAGGCTATGTGGGGGLAAATAGACTTTGIGA 1913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1914 AGGCCPTCTCTGTGTGAGAGAGCCAGAATFAGAAGATALCALCATGTGGAGCCTTTTCCACCACAC 1973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1896 CATGIAIGGCATATGCAAAGIGAAGAATATAGACCTIAAAITCAAAAICATIGIAACAGC 1955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2094 ATACAAGGAHCHPCCFCAFGCFGTFCAGGAGATTCAAAGGFGFFFFFGATCAAAGAAGA 2153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2214 TATTTTGGACTATGCTTTCACGCCCCCTAGCTTGTCACCAATACCTCACATTCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2076 TATTITICAGATATGCIICCACCAGGCCCCIACCIIGICACCAAATCCICCCCC 2135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2196 ACCCTGAAGAGTCCATATAAAATTTGAGAAGCTCTGAAGAAGACAAGAAGAAGAAGAGGC 2255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2394 AAGATCAAGAATCTTAGTATCAATTGGTGAATCATTCGGGACTTCTGAGAAGTTCCAGAA 2453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2136 AAGCCCTTACAAGTTTCCTAGTTCACCCTTACGGATTCCTGGAGGGAACATCTATALLTC 2195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2334 ACCCTGAAGAGGGATATATAAAATIICAGAAGGICIGCCAACAACAAAAATGACTCC 2393
                                                                                                                                                                        2034 CATGTATGGCATATGCAAAGTGAAGAATATAGACTTAAATTGAAAATGATTGTAAGAGG
                                                                                                                                                    1614 ACCITIATITGATCTTATTAAACAATCAAAGGACCGAGAAGGACCAACTGATCACCTIGA
                                                                                                                                                                                                                              1674 ATCTGCTTGTCCTCTTAAT/TTG/T/GGAGAATAATGAGAGAGAGGGAGATATGTATCT
                                                                                                                                                                                                                                                  1734 TTCTCCTCTGTAAGATCTCCAAAGAAAAAQGTTCAAGTACGCGTGTAAATTCTACTGCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1836 CCTGCAGAATGAGTATGAACTCATGAGAGAGAGACTTTTGGAGCAAATTATGTGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2154 GGAGIAIGATICIAIIAIAGIAIICIAIAACTCGGICIICAIGCAGAGACIGAAAACAA
1494 TITITTACAAAGTGATCGAAAGTTTTATCAAAGCAGAAGGCAAACTTGACAAGAGAAATGAT
                                                                                                                                                                                                                                                                                                                                                                                  1794 IGCAGAGACACAAGCAACCICAGCCIICCAGACCCAGAAGCCATIGAAATCTACCICTCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1974 CCTGCAGAATGAGTATGAACTCATGAGAGAGAGATTGGGACGAAATTATGATGTGTTC
                                                                                                                                                                                                                                                                                                                              q;
-•:
                                  dq
                                                                                                                                                  δ.
                                                                                                            qq
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                            qq
                                                                          . Oy
                                                                                                                                                                                                                                                                                                          δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q(1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
```

```
2676 TCTTTTGTGGATATAAAAIGTGCAGATGAAATGTTTGGGTGATTGTTGGTAAGCAATTGT 2735,
                   24.36 AACTAAACATCLCCCAGGAGAGTCCAAATTTCAGCAGAAAACTGGCAGAAATGACTTCTAC 2495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2574 AAGTAAACATCTCCCAGGAGAGTCCAAATTTCAGGAGAAACTGGCAGAAATGACTTCTAC 2633
                                                                              2634 TOGAAPACGAATGCAAAAGCAGAAATGAATGATAGCATGGATAGCTGAAACAAGGAAGA 2693
                                                                                                   2694 GAAATGAGGATCTCAGGACCTTGGTGGGACACGTGTGTACACCTCTGGGATTCATTFGTCTC 2753
                                                                                                                                                                                                2754 ACAGATGTGACTGTATAACTTTGCCAGGTTGTGTTATGGCCACATTAATATGTCAGG 2813
                                                                                                                                                                                                                                                             2814 TOTITITICIOGALATAAAATGIGCAGATGCAATTGTTTGGGIGATTGCTAAGCCACTTGA 2873
                                                                                                                                                                                                                                                                                                                                                                                                  2874 AATGITAGITGITATITGITATAGAAGAITGAAAAIGITGITAAATGCIGGCAITTIAAA 2933
                                                                                                                                                                                                                                                                                                                                                                                                                         2934 AAGTTGTAGGAGATTGTTTGCTCTCCAAAGTAAAATTGGTGTGTTTATGGATAGTAAG 2993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2994 AATGGGGTTAGAGTGGGAGTGCTGATAACCCAGGCCTGTCTGACTACTTTGGCTTGTTTT 3053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2856 AATGGCCCTAGAGTGGGAGTCCTGATAACCCAGGCCTGTCTGACTACTTTGCCTTCTTTT 2915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2976 TAACATGAACACCCTTAGAAAATGTGTGTTATGTATGTGCAAATGGAATTTGATTTGAGT 3035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3174 GCCCATTCAGGAAAATFALCCTGAACTCTTCTGCAAAAAFGGATATTAGAAATFAGA 3233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3096 AAAAAATTACTAATTTTAACACALTAAATTTTATTTTACTATTGGAATCTGATATACTGTG 3155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3294 TGCTTGTTTTATAAAATTTTGCTTTTAATTAAATAAAAGCTGGAAGCAAAGTATAAACGAT 3353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3156 FOCTTOTTTATAAAALTTTGCTTTTAATTTAAATAAAAGCTGGAAGCAAAGTATAAACCAT 3215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    334 ATGATACTATCATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGA 3413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: MODIFIED RETINOBLASTIONA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3414 TEATTTCTTCATCCAACTTATGTTTTAAAIGAGGATTATTGATAGT 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 44, Application US/09469522
Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ilu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-469 522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 7
                                                                                                                                                          5
                                                                                                                                                                                                                                                                        â
                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \frac{\hat{\Xi}}{\hat{\Xi}}
```

```
595 AAACTCTCACCTCCCATGTTGCTCAAAGAACCATATAAAACAGCTGTTATAACAATTAAT 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        655 GGTPPCACPPGAACACCCAGGCGAGGTCAGAACAGAGTGCAGGATGCAAACAACTA 714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 GTCCATAAATTCTTTAACTTACTAAAAGAAATTGATACCAGTACCAAAGTTGATAATGCT 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                355 ATCHCAAGACTGTTGAAGAAGTATGATGTATTGTTTTGCACTCTTTCAGCAAATTGGAAAGG 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             415 NOAFSTGANSTAANTTGACACAACCCAGCAGTACGATATCTACTGAAATAAATTCT 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       475 GCATTOGTIGCTAAAAGTTTTCTTGGATCACATTTTTTTTTTAGGTAAAGGGGAAGTTAGAA 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     535 ATGCAAGATCATCTGCTGATTTCATTTCAGTTAATGCTATGTGCTTGACTTGACTATTTTATT 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    295 GTCCATAAATTCTTTAACTTACAAAGAAATTGATAGCAGTACCAAAGTTGATAATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40 GTTGACCTAGATGAGATGTCGTTCACTTTTACTGAGCTAGAGAAAACATAGAAATGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 10, Length 3266;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93.2%; Score 3225.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Prou, ...
+'ve 0, Mismatches
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 7.,2502
SEQUENCE DESCRIPTION: SEQ ID NO: 34:
                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                        FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                         MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 3266 base pairs
                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION: NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                     <Unknown>
                                        BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 34:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                   COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 100.0
Matches 3226; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
                                                                                                                77210-4433
                                                         CITY: Houston
                                      STREET: P.O.
                                                                                                COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                             STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-469-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

.

774 579 83 <b>4</b> 639 699 954	3 7 0 7 0 2	1194 999 1254 1059 1314 1119	1179 1434 1239 1494 1299 1554 1359	4 7 7 8 8 6
AAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGAAGTTCTCTGTAAAGAACATGAAGTATATTATAGAAGAACATGAAGTTCTTGTTGTTGTTTTTTATGAATCTTTGTTGGACTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG	HILLITTELLIT	H-F 4-4 4-4 H-		
5 8 3 8 5 8 3				

1795 GANANANANANANANAN TEMPOTTANANAN TEMPOTANAN TEMPOTATAN 1854 2560 CASANGTGANTHILLININ HILLING HILLININ HILLININ HILLININ HILLININ 2519 2875 AIGITAGICAIIGITAIITAIACAAGAIIGAAAAIGIIGIGIGAAATGGIGGGGATTTAAAA 2934 1600 GGASASASASASSAAGCEGEGEGTTEGASASESAASSESTTGAAA1CLASSLCTGTL 1659 1855 TCACTGTTTTATAAAAAGTGTATCGGCTAGCCTATCTCCGGGCTAAATACACTTTGTGAA 1914 1660 TCACTGITITATAAAAABIGIATOGOJIAGGIATCICCGGCIAAAIACACITIGIGAA 1719 2035 ATCTATIGGGATATIGGAAAGTGAAGAATATAGAGCTTTAAATTGAAAATGATTGT 2094 2275 AGGCGTWAGAAGTTTCCTAGTTGAGGAHIGGTGGAGGGAAGALGIALAILIGA 2334 2395 AGATCAAGAATCTTAGTATCAATTCGTGAATCATTCGGGGACTTCTCTGAGAAGTTCCAGAAA 2454 2200 AGATTAAGAATTITAGTATGAATTGGTGAATGATTGGGGAGTTGTGAGAAGTTGGAGAAA 2259 2455 ATAAATGAGATGGTATGTAAGAGGGAGGGTGTGTCAAAAGAAGTGCTGAAGGAGCAAG 2514 2635 CGAACACACAATCCAAAAGCAGAAAATGAATGATAGCATGGATACCTCAAACAACAAGAA 2694 2755 CAGATGEACTETATAACTITECCAGCTTC.CT.LIALGEGEGATTTAAYATGTTCAGCT. 2814 2815 CHUTHUROGATATAAAATSTSCASATSCAATTGTTTSGSTGATTGTVARGGSAGTTGAA 2824 1915 COCCUMPANGUENGAGEACTEAGAATTAGAACATATCATETGGACCCUTTTGCAGGAGAGA 1975 CTGCAGAATGAGTATGAACTCATGAGAGACAGGCATITGGACCAAATTATGATGTGTTGC 2095 TACAACGATCTTTCATGTTGTTCAGGAGACATTCAAAGGTGTTTTGATCAAAGAAGA 2155 GAGTATGATTGTATTATAGTATTGFATAAGTGGGGTGTTGALGGAGAGAGTGGAAAAGAAAT 1960 GAGTATGATTGTATTATAGTATTGTATAAGTGGGTGTTGATGCAGGGGGGAAAACAAA 2215 ATTITICAGIA FOCTFOCACCAGGCCCCTACCTTGTCACCAATACCTCACATTTCTCA 2515 PPPPTAAAPPAAAAAAAAPTAPBITTGATATTGAAGGATGAGATGAGGAGGAGGA 2380 AGTAAACATCTOCCAGGAGAGTCGAAATII.CAGCAGAAACIGGGCAGAAATGACTTCTACT 2695 AAATGAGGALCICAGGACCIIGGIGGACACIGIGIACACCICIGGATICATIGICICAA 십 10 덛 2 d Š Ω̈́ 5 qq ò  $\delta$ q qq ò 3 g ò £ े a 8 Š q Š  $\frac{5}{0}$ à ò

```
2680 AIGLIAGHTHILLITHITHITHITHITHITHITHITHITH 3239
                                                                                                                                                                                   2980 CCCATTCACCAAAATTATCCTGAACTCTTCTGCAAAAATGGATATTATAGAAATTAGAA 3039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29.65 AUTTOTAGFAGATTGTTTGCTCTTCCAAAGTAAAATTGCTGTGTTTATGGATAGTAAGA 2594
                                                                                          2740 AGLIGIAGNAGALIGILIGILIGGERI IGGERI IGGERI IGGERIAGAAAATI GCEGIGTTI IAIGGATAGTAAGA 2799
                                                                                                                                                        3234 CCGATTCACCAAAATTALCCIGAACTCTTCTGCAAAAATGCATTTTTTTTAGAAATTTAGAA 3234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4235 AAAAATTACTAATTTTACACATTAGATTTTALTTTACTATTGGAATCTGATATTACTGTGT 3294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  229 GOTTGITTIATAAAATTTTGCITTTAATTAAATAAAAGCTGGAAGCAAAGTATAACCATA 3354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3100 GCLFGFFFFAJAAAATTTTGCFFFTAAFTAAAFAGGTGGAAGGAAAGFATAACCATA 3159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           335 FGATACTATOATACTACTOAAACAGATTTOATACTTCAGAATGTAAAAGAACTFACTGAP 3414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      §160 TGATACTAPOATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAAAACTTACTGAT 3219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3415 TATLITICITIONAL COMPANIEM TO THE MANIEM AND TARLITICATAGE 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARF: Patentin Release #1 0, Version #1 30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/469.522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: THM PC COMPATIBLE
OPERATING SYSTEM: PC:DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: CURKBOWN > PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 42, Application US/09469522
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILLING DATE: 22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: * Unknown * ATTORNEY/AGEN! INFORMATION: NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HOX 4411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 77210 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SECTIONCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: P.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PESULT 8
US 09 469 522 32
                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                            ŝ
```

```
955 ATAGACAGTITIGAAACACAGAGAGAACACACAAAAAAGTAAACCTIGATGAAGGGGGAAT 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5.34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  235 GTCGACCTAGATGTCGTTCACTTTACTCAGTACAGAAAAACATAGAAATCAGT 294
                                                                                                                                                                                                                                                                                                                                                                                                                                 157 GECCATAAATECTTTAACTTACTAAAAGAAATEGATACCAGTACCAAAGTTGATAATAATGCT 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                355 ATGTCAAGACTGTTGAAGAAGTATGATGTTTGTTTGCACTCTTTCAGCAAATGCAAAAGG 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    415 ACATGTGAACTTATATATTGACACCCAGCAGTTCGATATCTACTSAAATAAATTCT 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             535 ATGGAAGATGATCTGGTGATTTCATTTCAGTTAATGCTAFGTGTCCTTGACTATTTATT 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                397 AIGGAAGAFGAFGAFFFGAFFFGATTICAGTTAALGCLATGTGTCCTTGACTALLTTALL 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       457 AAACTCTCACCTCCCATGTTGCTCAAAGAACCATATAAAAACAGCTGTTATAAAAT 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            715 GAAAATGATACAAGAATTATTGAAGTTCTCTGTAAGAAGATGAAFGTAALAGALGAG 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 775 GTGAAAAATGIIIATIICAAAAATIIIATACCIIITAIGAAIICICIGGANIIGIAANA 844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 835 TCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATACGAAGAATLTALTTTAAA 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              597 TCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAAAATGAGGAAGAAATTTATAAA 756
                                                                                                                                                                                                                                                                                                                                                            0; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       295 GTCCATAAATTCTTTAACTTAAAAGAAATTGATACCAGTACCAAAGTTGATACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               475 GCATTGGTGCTAAAAGTTTCTTGGATCACALTTLLATTAGCTAAAGGGGAAAGTALLACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   595 AAACTCTCACCTCCCATGTTGCTCAAAGAACCATATAAAACAGTGTTATAACATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   895 AATAAAGATCTAGATGCAAGATTAFTTTTGGATGATGATAAAACTGTTGAGACTGATTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93.2%; Score 3225.4; DB 10; Length 3323; 100.0%; Pred; No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                                                                100.0%; Pred. ....
             REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418 3000
                                                                                                                                                                                                                                                             SEQUENCE DESCRIPTION: SEQ ID NO: 42;
REGISTRATION NUMBER: 41,071
                                                                                                                            LENGTH: 3323 base pairs
                                                                     TELEFAX: 512/474-7577
                                                                                                                                                TYPE: nucleic acid
STRANDEDNESS: single
                                                                                         INFORMATION FOR SEQ ID NO: 32: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 100.0
Matches 3226, Conservative
                                                                                                                                                                                      ToPoLoGY: linear
                                                                                                                                                                                                                           NAME/KEY:
                                                                                                                                                                                                                                             LOCALION:
                                                                                                                                                                                                         FEATURE
                                                                                                                                                                                                                                                                               08-09-469-522 32
                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ογ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

\$ \$ \$ \$	404040	, 4 & 6 4 & 6	4 8 4 8 4 9	4 5 4 5 4 5	7 2 2 3 3 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 5 5 5
107 936 113 996 119	125 111 131 137 137		1 1 1 1 1	179 165 185 171 191 177	197, 183, 203, 209, 195,
GITANTTCCTCCACACACTCCAGITAGGACTGTTATGAACACTATCCAACAATTAATGATG GTAATTCCTCCACACACTCCAGTTAGGACTGTTATGAACACTATCCAACTTAATGATG GTAATTCCTCCACACCTTAGGACTGTTATGAACACTATCCAATTCAATGATG ALTTTAAATTCACCAAGTCACCTTCAACAAATCTGATTCCTATTTTAACAACTGA ALTTTAAATTCAGCAAGTCATCACCTTCAAAAATCTGATTCCTATTTTAACAACTGA ATTTTAAATTCAACAAAGAAGTCATCAAAAAATCTGATTTCCTATTTTAACAACTGA ACAGTCAAACAAAAAAATCAAAAAAAATCTGAAAAAAATCTGATTTTAAAAATTTTAAAAAACTGAATCAAAAAAAA	GAGAAATTTGCTAAAGCTGTGGGACAGAGTTGTGTGGGAAATTGGAGAGACAGAGATA GAGAAATTTGCTAAAGCTGTGGGACAGGGTTGTGTGGAAATTGGATCACAGGGATA CTTGGAGTTCGCTTGTATTACCAGTAATGGAATCCATGCTTAAATCAGAGAAGA CTTGGAGTTGGTTGTATTACCAAGTAATGGAATCATGGTTAAATCATAGAAGAAGA CTTGGAGTTGGTTGTATTAGCAAGTATGGAATCATGGTTTAAATCATATGTCTTT	GOSTGONGT CTTGAGGTTGTAATGGCACATATAGCAGAGGGGGGGGGG	AACATITASAACSATGTSAACADSGAATCOTTSCATTSCATTSCATTSCATTSCATTSCATTSCA	TCTCCTGTAGGATCTCCAAGAAAAAGGTTCAACTAGGGGGGGG	2
1015 877 1075 937 937 999	1145 1057 1255 1117 1315 1177		2	1735 1597 1795 1657 1855	1915 1975 1975 1837 2035 2035 2095
	à da	3 d 3 d 3 d	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	a constant of the constant of	60 OY 09 OY

QQ	1957	TACAAGSATCTTCCTCATGCTGTTCAGGGGACALTCAAAGSFSTTTTGATCAAGAGAG
QY	2155	GAGTATICATTCTATTATAGTATTCTATAACTGGGTCTTGATGACAGTGAAACAAAT
qq	2017	GAGIAIGATTOTATTATAGTATTOTATAACTOGGTCTTCATGCAGAGACTGAAAAAAA
Qy	2215	ATTTEG WITATEGTTGCAG AGG CCCTTACTTGTCAGATACCTCACACCTCACACCTCACACCTCACACCTCACACCAC
q	2017	ATTITIONALI ATTITIONALI AND
Š	2275	ANY OF THE CONTRACT OF THE CASE OF THE CONTRACT OF THE CONTRAC
qa	2137	AGGGGTTAGAAGTTTGGTTTGAGGTTAGGGATTGGTGGAAGGAAGATGTTTGA
Qy	2335	
qq	2197	CCCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTGCAACAACAAAAAAGGCTCCA
δō.	2395	AGATCAAGAATCITAGIATCAAITGGGGAATCATICGGGACTTCTGAGAAGITCCAGAAA
<b>Q</b>	7425	AGATICAAGAATHTTTCGGGGAATTCGGGGAATTCCGGGAATTCCAAAA
à d	2317	ATAMATICMA PSTATETAM   MF 1487 1415 14   T. AAAMAMEETE   TAMAMAMEETE   TAMAMAMEETE   TAMAMAMEETE   TAMAMAMEETE   TAMAMAMEETE   TAMAMAMEETE   TAMAMAMEETE   TAMAMAMAMEETE   TAMAMAMAMAMAMAMAMEETE   TAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAM
ÓΫ	2515	CCTCCTAAAACCACTGAAAAAATTAGGCTTTGAAGGATGAGATGAAGCAGATGGA
qq	2377	
Qy	2575	AGTAAACATCTCCCAG-AGAGTCCAAATTTCAG-AGAAACTGGCAGAAATGACTTCLACT
qq	2437	AGTAAACATCTCCCAGGAGAGTCCAAATTTTAACTAGAAACTGGCAGAAATGACTTCTAGT
Qy	2635	CGAACACGAATGCAAAAGCAGAAAATGAATGATAGCATGGATACCTCAAACAAGGAAGA
QQ	2497	C6AACACGAATHELIA HITTER A CAATAA CAAT
ΟŸ	2695	AAATGAGATGTGAGGACGTGGAGAGGGGGGGGGGGGGGG
Dp	2557	AAATGAGGATCTCAGGACGGACGACGCGTACACCTCTGGAATTCATTGTCTCA
ŝ	2755	PASATGTGACTGTATAAPTTTPOCAGGTCTGTTTATGACGACAGTATAATGTTTAAGT
qq	2617	CAGATGTCACTGTATAACTTTCCCACCTTCTGTTTATGCCCACATTTAATATCTTCAGC
Š	2815	CTTTTS195A1A1AAAA1CT97A5AT9CAAT5GTTG9GTGAT6CTAA82CAA1T6AA
qq	2677	CTTTTTGTGGATATAAAATGTGGAGATGTAATTGITTGGGSTGALLCCTAAGGCACTTGAA
0y	2875	ATGTTAGTCATTGTTATTATACAAGATTGAAAATCTTGTGTAAATCCTGCCATTTAAAA
g 	1 + 17	AIGITAGICATIGITATITATACAAGATIGAAAAECTIGIGAAATEETGEOTATITAAAA
à	2935	AGTEGTAGNAGATEGTTENN PNITECCAAAATTENN TEGTEGTTTATGGATAGTAAGA 
₫	2797	AGITTGTAGGAGATTGTTTTGTTGTTGTAAAATTGGTGTGTTTTATGGATAGTAAGA
ζ 	4567	APGACCTANACTORS AGENCE AND ANACOTANGENT AND ACTION OF THE CONTRACTOR AND ACTION OF THE CONTRACTOR ACTION OF THE CONTRACTO
qa :.	2857	$\textbf{ATGG} \land CTAGAGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG$
OY	3055	TAGCATATAGGTGATGTTTGCTCTTGTTTTATTAATTAAT
Db	2917	TAGCATAFAGGTGALGTTFGCFCTTGTTTTTATATTATATTTTTTTTTTTAATTT
S S	3115	115 AACAIGAACACCTTAGAAAAGGTCCTATCTATCTATCCAAAGGCAATTTGATTGA
Ċ	3175	CONTROL AND ANATTATOR TARANTOT TO AN ANAMARIS SATATION TO THE CONTROL OF THE CONT

```
<u>a</u>
                                                                                                                                                                9
                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                              q:
                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₫
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                    ò
                                                                                                   g
                                                                                                                                  ò
                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                  ें
                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ċ
                                HITTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTAAAAAGCTGGAAGCAAGAAGTATAACGTA 3216
                                                                                                                                                                                8037 CCCATTCACCAAAATTATCCTGAACTCTTCTGCAAAAATGGATATTAGTAGAAATTAGAA 3096
                                                                                                 3355 TGATAGTACTACTACTICAAACAGATTICAFACCTCAGAATGTAAAAGAAGTFACTGAT 3414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DH 10; Length 3492;
                                                                                                                                                                                                                                             3415 TATLLICTICALCARCHEAGHTTTTAAATGAGATTATTGATAGL 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 94.2%; Score 4225.4;
Hest Local Similarity 100.0%; Pred. No. 0;
Matches 4226; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Arnold, White & Durker STREEL: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: PC DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: 7...2628
SEQUENCE DESCRIPTION: SEQ ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER FEMOMETE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IHM PC COMPATABLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 22 Dec-1999
CLASSIFICATION: +Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                               Benediet, William F
                                                                                                                                                                                                                                                                                                                                             : Sequence 30, Application US/09469522
: Patent No. US20620151461A1
: GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: $12/418 3000
TELEFAX: $12/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 3392 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALTORNEY/AGENT INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hibler, David W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACLERISLICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                Bu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PubuloGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME
                                                                                                                                                                                                                                                                                                                              US 119 469 522 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US 09 469 522 80
                                                                                                                                                                                                                                                                                                             RESULT 9
                                                               ŝ
                                                                                                 5
                                                                                                                            =
                                                                                                                                                                \geq
                                                                                                                                                                                                                              5
```

```
1066 ACAGTGAATCCAAAAGAAGTATACTGAAAAGAGTGAAGGATATAGGATACATCTTTAAA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1315 TTATCCATTCAAAATTTTAGOAAGTTCTGAATGACAACATTTTTCATATGTCTTTATTG 1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     946 GTAATTCCTCCACACACTCCAGTTAGGAATGTTATGAACAATATCCAAATTAATGATG 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1075 ATTITAAATTICAGCAAGTIGATCAAGGTICAGAAAATCIGATTIOTIAATAACHGC 1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1135 ACAGTGAA FORAAAGAAAGTAFAGTGAAAAGAGTGAAGGATAFAGGAFAYTGTTAAA 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1195 GAGAAAT FEGGTAAAGGEGEGGGACAGGGEEGEGGAAAT EGGEGAAAT FEGGEAAAA 1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1255 CTTGGAGTTCGCTTGTAFTACCGAGTAATGGAATCCATGCTTAAATCAGAGAAGAAGA 1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          955 ATAGACAGTTTTGAAACACAGAGAACACACAAAAAGTAAAATTTGATGAAGAGGTGAAT 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     355 ATGTCAAGACTGTTGAAGAAGTAIGATGTALIGTTIGTACICLICAMAAALIMBAAAGAAAGG 414
                                                                                                                                                                                                                                                                                           475 GCATTGGTGCTAAAAGTTTGTTGGATGACATTTTATTAGGTAAAGGGGAAAGTTTTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      406 GCATGGTGGTAAAAGTTGTTGGAGGACAAHHHAHHAGCIAAAGGGAAAAGTATTACAA 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    886 ATAGACAGTTTTTGAAACACAGAGAACACACAAAAAGTAACCTTGATGAAGAGGAGTT 945
                                                                                                                              295 GECCATAAATECETTAACETAAAAGAAAFEGATAGAGEGCAGAAAGEGALAAFGG 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                        346 ACATGTGAACTTALALATTGACAAAAACCAACAGTTCAALATTAACTGAAATAATTCT 40%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     526 AAACTCTCACCTCCCATGTTGCTCAAAGAAMATATATAAAACAMMGTTATTAAF 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   655 GGTPCACCPCGAACACOCAGGGGAGTPCAGAACAGGAUTGCAPUGGALAGCAAAAFAAATA 714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              715 GAAAATGAAGAALLATTGAAGTTCTCLGLAAAGAAGATGAATGTAALALAGAGAGA 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               646 GAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAAGALGAG 705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            775 GTGAAAAATGTTTATTTCAAAAATTTTATACTTTTATGAATTCTTGGACTTGTAACA 844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             706 GYGAAAAAYGYYTATYYGAAAAYYYYALAGGYYYYATGAATYGYCY GGACTLGTAACA 765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          835 TCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAAGGATAGGAAAATTFATAAA 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        766 TCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATACGAAAAATTTATCTTAAA 825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         895 AATAAAGATCTAGATGCAAGATTATTTTTGGATCATGATAAAACTTCTTCAGACTGAFFCT 954
                              235 GTCGACCTAGATGAGATGTCGTTCACTTTTACTGAGCTACAGAAAAACATAGAAATCAGT
```

•								•										
•																		
30	1434	1494	1554	1614 1545	1674	1734 1555	1794	1854 1785	1914 1845	1974 1905	2034 1965	2094	2154	2214	2274 2205	2334	2394	7454
ATATGTCTTTA	ACATCTCAGAATCTTGAT 	TAATTTAAAAGCCTTTGAT 	TTGACAAGAGAAATGATA ELLITITITITITITITI	NTOCT LOCALGOCICICAGAIECA 	CAACTGATCACCTTGAA 	CAGCAGATATGTATCTT 	HAAATTCTACTGCAAAT 	ATTGAAATCTACCTCTCTT 	TAAATACACTTIGIGAA 	ROCTTTCCAGCACACC	3GACCAAATTATGATGTGTTCC 	ATTCAAAATCATTGTAACAGCA 	HATTTSATCAAAGAAGAG 	rgcagagactgaaaacaaat 	J AĞĞ FÇAĞATPOĞTGGA 	USGASSAACAFCIAIAITICA HITTIHIHIHIHIHIH USGASSAACAFCIATATICA	CAACAAAAYGACYGGA [TTTTTTTTTTTTT GAACAAAATGACTCCA	
ATGACAACAT''I	CCACATATAGCAGAAGTA 	TTCCCATGGATTCTGAATGTGCTTA 	TGAAAGGAGAAGGAAGT LITITITITITITITITITI FCAAAGGAGAAGGAAGT	NICAIGGAAICGGILG 	TEATTAAAGAATGAAAGGACGAGAAGGACGAACTGATG 	TTCCTCTCCAGAIAATCACACACTGCAGCAGATA' 	CTOCAAAGAAAAAGGTTCAACTAGGGGGGGTGTAAATTO 	AGAGACACAACAAACCICAGCCTTCCAGAGCCAAAACCAT 	PPAGCCTATCTCCGGCTAAATA 	TTAGAACAFATCAFCTGGACCC; 	GGCATTT		MARKANATTONAANATA 	ATAACTCGGTCTTCATGC 	() () () () () () () () () () () () () (	TTACGGALLCC1GGAG 	agaaggicigggaacacgaacaaaay 	
AAA	TCTTGAGGTTGTAATGGCC. 	GTCTTTCCCATGG   HTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	AAGTGATOGAAAGPPPTATG 	TAGAAGATGTAAAATCAAAATCAAAATTIIIIIIIIIIII	TTALIAAACAATCA 	TTAATC         TTAATC	TCCAA             TCCAA	CAACCTCAGCCTTC 	AAAAAGTGTATGGGTAGGGTA 	STUTGAGUAGUAGAGAA FIA HELLIHILIHIHIHI STUTGAGGAGGAGAA FIA	FATGAACTCATGAGAGACA 	ATGCAAAGTGAAGAATATAGAGG 	CATGCTGTTC, 	ATACTATTCT 		OCTAGTTCACCO 	AAATTTÇ 	
Š	3061666616116 	C GGAACAGA T  G C T T    - - - - - - - - - - - - - - - -	FI FIACAAAGTGA FIFFFFFFFFFFFFFF FITFACAAAGTGA	AAACATTTAGAAC 	CCITIATITGATO HILLHILLII CCITIATITGATO	TCTGCTTGTCCTC	TCTCCTGTAAGATG 	GCAGAGACACAAG 	FCACTGTTTTATAAAA HTTTLLLLLLLLLLLLLL FCACTGTTTTATAAAAA	0000TICIGICIG 	CTGCAGAATGAGT 	AIGTATGGCATAT IIIIIIIIIIII AIGTAIGGCAIAI	TACAAGGATOTTOOT 	GAGTATGATTGTATT 	ATTTTGCAGTATGCT   JTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	AGCCCTTACAAGTTT 	CCCCIGAAGAGTCCATATA ULLILILIIIIIIIIIIIIII OOOTTAAAGAGTCCATATA	
1.246	1475 1406	1435	1495 1426	1555 1486	1515	1675 1606	1745 1664	1795 1726	1855	1915 1846	1975 1906	2035 1966	2045 2026	2165 2086	22°6. 2146	2206 2206	2335 2266	
ā	4 g	착 출	45 10 10 10	숙음	¥ £	삼	47	5 =	<b>李</b> 壹	숙울	5 £	충물	중 를	A 6	5 £	주 원	숙용	

3234 2746 CTTTTTGTGGATATAAAATGTGCAGAGGAATIGTTGGGGGGATIGAA 2805 2875 ATGTTAGTGATTGTTATTTATACAAGATTGAAAAICITGTGTGAAAATGCTGGGGATTTAAAA 2934 3055 FACCAPAPAGGIGATGCTCTCTTTTAFTAATTATATGTATATTTTTTTTAATTT 3114 2326 AGATCAAGAALCTTAGTATGAATTGGTGAALGAJTGGGGACTTGTGAGAAGTLGCAGAAA 2385 2455 ATAMATCAGAIGGTATGTAACAGGGGCGIGTGCTCAAAAAAAAGAAGIGCIGAAGGAAGGAAC 2515 ÇÇIYÇTTABARÇARTIŞABABARTARGÇTTTTGATATTGABĞGATÇAĞATGABĞCAĞATĞĞA 2574 2755 CASATGTGATGGTAATATTTGTGASSITCLSITIAISGCCACATITAAIAIGTTCASCT 2814 2806 AIGTIAGICATIGITATIATACAAGAITGAAAAIGITGIGIGAAAICCIGGCALTIAAAA 2865 3355 TGATACTATCATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGAT 3414 3295 GCTTGTTITATAAAATTTTGCTTTTAATTAAATAAAAGGGGAAGCAAAGTATAACATA 3354 3286 IGATACTATCATACTACTGAACAGAITTCAIACTCAGAATGIAAAAGAACTTACTGAI 3345 3106 CCFATICAROAAAATATROTGAARTOTTOTOYAAAAAIGGATAITATRAAAATARAAA 2575 AGTANACATOTOCAGGAGAGICCANATITOAGCAGANACIGGCAGANAIGACIICIACI 2695 AAATGAGGATGTGAGGAGGTTGGTGGAGAGTGTGTAGAGGTGTGGATLGALLGTGLGLGL 2935 AGTIGIAGCAGATIGITICCICTICCAAAGIAAAATIGCTGIGCTITATGGATAGIAAGA 3175 CCCATTCACCAAAATTATCCTGAACTCTTCTGCAAAAATGGATATTAGAAATTAGAA 3235 AAAAATTACTAATTTTACACATTTAGATTTTTATTTACTTATTGGAATCTGATATACTGTGT 2506 AGTABABCATICTOCGAGGAGAGTOCBABATTICAGGAGAACTGGGGAGAATGACTTCTACT 2986 IAGCATATAGGTGTTTGCTCTGTTTTTATTAATTTATATGTATTTTTAATTT 3166 AAAAATTACTAATTITACACAITAGATTTTATTITACIATTGGAATGTGATATATGTGT 3415 TATHTTCTTCAHCCAACHTATGTTTTAAATGAGGATTATGATAGI 3461 3346 TATTITCTICATCCAACTIAIGTITITAAAIGAGGATIAITAITGAIA33 qq. .. oy đ do, οy Q CP à qq á ò δ ò qq òχ qq 9 ζ òγ qq

RESULT 10 US-09-469-522-3

```
ें
                                                                                                   qq
                                                                                                                                                                            q
                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                            a
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           110 AACTTACTAAAAGAAATTGATAGGAGTACCAAAGTTGATAATGGTATGTCAAGACTGTTG 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 250 AFGIGGITGACTITIACTGAGGLACAGAAAAGATGGAAATGAGTGTGGGTTAAATTGTTT 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420 AAGAAGTATGATGATGATTGTTGGAGTGTTTGAGGAAATTGGAAAGGAGATGTGAACTTATA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.30 TATITICACACCACACACATATATATATATAAATAAATTICTICATAAAA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      187 TATITUACAOAACCAGCAGCAGTEGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAA 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           490 CHTECTFOGAFCACATTITFATTAGCIAAAGOCCAAGTATFACAAATGGAAGATGATCFG 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 247 GILICTTOGATCACATTTTTALLACCTAAAGGGGAAGTATTACAAATGGAAGATGATGTG 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        850 GIGAITICATIICAGIIAAIGCIATGIGICCIIGACIAIIITALTAAACLCECAGCICCE 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7 ATGTCGTTCACTTTTACTCAGCTACAGAAAAACATAGAAATCACTGTCCATAAATTCTTT 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Benedict, William F.
Zhou, Yunli
THIF OF INVENTION: MOLIFIED PETINGRIASTOMA TUMOP SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        # Match 92.8%; Score 3212; DB 10; Length 3218;
Local Similarity 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSER: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LELECOMMUNICATION INFORMATION:
TELEPHONE: 5)2/418 4000
TELEFAX: 512/447577
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
Sequence 4, Application 05/09469522
Patent No. 0520020151461Al
GENERAL INFORMATION:
                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGIH: 3218 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                · Onknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Hibler, David W.
                                                                                                                                                                                                                                   STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                            NUMBER OF SEQUENCES: 51
                                                          Xu, Honq Ji
                                                                               Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ToPoloGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 4212; Conservative
                                                                                                                                                                                                                                                                                            COUNTRY: USA
ZIP: 77210-4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CUS
                                                                                                                                                                                                                                                    CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILLING DATE:
                                                                                                                                                                                                                                                                            STATE
                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18 09 469 522 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>-</u>2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
```

```
1390 GTTGTAATGGCCACATATAGCAGAGTACATCTCAGAATCTTGATTCTGGAACAGATTTG 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1510 GAAAGTTTTATCAAAGCAGAAGTTGACAAGAGAAAIGATAAAACATTAAGAAGA 1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1270 TATTACCGAGTAATGGAATCCATGCTTAAATCAGAAGAAGGATTATCCATTCAAAAT 1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1147 GTTGTAATGGCCACATATAGCAGAAGIACAICICAGAAICITGAITCIGGAACAGATTIG 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1450 ICTITCCCATGGATTCTGAATGTGCTTAATTTAAAAGCCTTGGATTTTTACAAAGTGATC 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1207 TCTTTCCCATGGATTCTGAAIGTGCTTAAAAGCCTTTGAITTTTAAAAGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1570 TGTGAACATCGAATCATGGAATCCCTTGCATGCACTCAGATTCACTTTATTTGATCTT 1629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             970 ACACAGAGAACACCACGAAAAAGTAACCTTGATGAAGAOGTGAATGTAATTCTCTCTCTACAC 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .030 ACTCCAGTTAGGACTGTTATGAACACTATCCAACAATIAATGATGATTTAAATTCAGCA 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          150 GAAAGTATACTGAAAAGAGTGAAGGATATAGGATACAT TTTTAAAGAGAATTTGTTAAA 1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1210 GCTGTGGGAAYAGGGTTGTGGAAATTGGAIGAGGATAGAAAATTGGAATAGAGTTGGAGTTGGAGTTGG 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1330 TTTAGCAAACTICTGAATGACAACATTTTICALAIGTCTITATIGGCGTGCGCTCTIGAG 1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      267 GAAAGTITTATCAAAGCAGAAGGCAACTTGACAAGAGAAATGATAAAAACATTTAGAACGA 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1630 ATTAAACAATCAAAGGACCGAGAAGGACCAACTGATCACCTTGAATCTGCTTGTCTCTT 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1090 AGIGATCAACCIICAGAAAATC1GAF11CCFAIIIIAACAACIGCACAGGGATCCAAAA 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        907 GAAAGTATACTGAAAAGAGTGAAGGATATAGGATACTTTTAAAGAGAAATTTGCTAAA 966
                                                                                                                                                                                                                                                                                                                                                                                          547 ITCAAAAATITIATAGGITITATGAATICTCTTGGACTTGTAACATCTAALGGACTTCCCA 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       850 GAGGTTGAAAATCTTTCTAAACGATACGAAGAAATTTATCTTAAAAATAAAAGAT 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  910 GCAAGATTATTTTGGATCATGATAAAACTCTTGAGACTGATTCTATAGACAGTTTTGAA 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              847 AGIGAICAACCIICAGAAAAICIGAITIICCIAIITIIAACAACIGCACAGIGAATCCAAAA 906
610 ATGTTGCTCAAAGAACCATATAAAACAGCIGTTATACCATTAATGGTTCACTTCAAAAA 669
                                                                                                                                                                                                                       427 CCCAGGCGAGTICAGAACAGGAGTIGCACGGATAGCAAAAATTIAGAAAATGATAAAAA 486
                                                                                                                                                                                                                                                                                                                                                        730 ATTATTGAAGTTGTGTSTAAAGAACATGAATGTAATATAGAGAGGGGGGGAGTGTTAT 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                790 TTCAAAAATTTTATACCTTTLATGAATTCTCTLGGACTTGTAACAGTAALGGACTTCCA 849
                                                                                                                                                               367 ATGTTGCTCAAAGAACCATATAAAACAGCTGTTATACCCATTAATGGTTCACCTCGAACA 426
```

```
2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1567 ACTICAGCCTTCCAGAGCCAGAGGCATTGAAATCTACCTCTCTTTCACTGTTTTTATAAA 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1882 CACCCAGAATTAGAACATATCATCTGGACCCTTTTCCAGCACACCTGCAGAATGAGTAT 1746
1487 ATTAAACAATCAAAGGACGGAGGAGGACCGAACTGATCACCTTGAATCTGCTTGTCCTCTT 1446
                                                                                        1690 AATCTIGGIGIGGAGAAFAAGAGAGIGGAGAAATGTATGTAFFTGTCTGTGTAAGATCT 1749
                                                                                                                                                                                                                                                                                                                                               1507 CCAAAGAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAATGCAGAGACACAAGCA 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                             1819 ACCICAGOTICCAGACCCAGAAGCCATIGAAAICTACCICICTITCACIGTITTAIAAA 1869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1998 GAACTCATGAGAGACAGGCATTTGGACCAAATTATGATGTGTTCCATGTATGGCATATGC 2049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1747 GAACTCATGAGAGAGAGACATTTTGACAAATTATGATGTGTTCCATGTATGCCATATGC 1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1807 AAAGTGAAGAATATAGACCITAAATTGAAAATCAITGTAAAAGAATAAAAGGATCITCCI 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2110 CATGCTGTTGTCAGGAGACATTGAAAQGTGTTTTGATCAAAGAAGAGGAGTATGATTGTTT 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2230 TCCACCACACCCCCCAACCTGTCACCAATACCTCACATCCTCGAAGCCCTTACAAGTTT 2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ASSE ATHERITIES AND A STANDARD A STAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2710 GACCTTGGTGGGACACTGTGTACACCTCTGGATTCATTGTCTCTCACAGATGTGTGTAT 2769
                                                                                                                                                                                                                                                                1759 CCAAAGAAAAAGGTICAAGTACGCGTGTAAATICYACTGCAAATGCAGAGGCACAAGGA 1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1987 TCCACCAGGCCCCCTACCTTGTCACTACCTCACATCCTCGAAGCCCTTACAAGTTT 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2290 CCTAGLICACCCTTACGGATTCCTGGAGCACCTCTATATTTCACCCCTGAAGAGTCCA 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2450 TATAAAATITGAGAAGGTCTGGGAACAAGAAAAATGACTCCAAGAICAAGAAGTIA 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2107 TATAAAATITICAGAAGGICTGCCAACAACAAAAATGACTGCAAGAAGATCTTA 2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2530 AAAAAACTACGCTTTGATATTGAAAGATCAGATGAAGCAGATGGAAGTAAAGATCTCCCA 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2287 AAAAAACTACCCTTTGATATTGAAGGATCAGATGAAGCAGATGGAACTAAACATCTCCCCA 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2/4/7 GGAGAGTCCAAATTTCAGCAGAAACTGGCAGAAATGACTTCTACTCGAACACACAATGAA 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2050 AAAGTGAAGAATATAGACCTTAAATTCAAAATCATTGTAACAGGATACAAGGATGTTGCT
                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \frac{\Xi}{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

```
3250 TACACAITAGAITITATITTACIA1GSAAICIGAIAIACIGIGGGGTGITGIITAIAAA 3309
                                                                                                                        2587 AAATGTGCAGATGCAATTGTTTGGGTGATTCCTAAGCCACTTGAAATGTTAGTCATTGTT 2646
                                                                                                                                                                  2890 ATTTATACAAGATTGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCAGATTG 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3127 ACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGATTTTTGTTCTTCATGCA 3186
2770 AACTTTCCCAGGTTGTGTTTATGGCCAGATTTAATATGTTCAGGCTCTTTFTGTGGAIA)A 2829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3130 AGAAAATGTGTGCTATGTTGCAAATGCAATTTGATTGACTGCCCATTCACCAAAA 3189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3310 TTTTGCTTTTAATTAAATAAAGCTGGAAGCAAAGTTATAACCATATGATACTATCATAGT 3369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3370 ACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGATTATTTTCTTCATGCA 3429
                                                                                  2830 AAATGTGCAGATGCAATTGTTTGGGTGATTGCTAAGGCGACTTGAAATGTTAGTCALLGTT
                                                                                                                                                                                                             2647 ATTTATACAAGATTGAAAATCTTGFGTAAATCGTGCCATTTAAAAAGTHGTAGCAGATTG
                                                                                                                                                                                                                                                     2950 TTTCCTCTTTTCAAAGTAAAATTGCTGTTTTATGGATAGTAAGAATGGCCCTAGAGTGG
                                                                                                                                                                                                                                                                         2707 TITCCTCTTCCAAAGTAAATIGCTGTGCTTTATGSATAGTAAGAATGGCGGTAGAGTAGA
                                                                                                                                                                                                                                                                                                                                                                               2947 TATCCTGAACTCTCCAAAAATGGATATTATAGAAATTAGAAATTAGAAATTAGAAATTT
                                                                                                                                                                                                                                                                                                                                       3010 GAGTOCTGATAAGGGAGGGGTGTGGGATAGTTTGGGTTGTTTGTAGGATAIAGGTGAI
                                                                                                                                                                                                                                                                                                                                                                                                                          ROZO GITIGCICIIGITITITALIAATITAIGIAIATITITITAALIITAACATGAACACOCCII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                              3430 ACTIAIGTITITAAAIGAGGATIATIGAIAGI 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLEESFUNDENCE ALDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3187 ACTTATGTTTTTAATGAGGATTATTGATAGT 3218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-469-522-42
Sequence 40, Application US,00469522
Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SHOUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATTON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CENERAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
                                     g
                                                                                                                        q
ò
                                                                                  ò
                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
Š
                                                 <del>Q</del>
                                                                           ć
                                                                                                 3
                                                                                                                              ò
                                                                                                                                                    П
                                                                                                                                                                              ŝ
                                                                                                                                                                                                     <u>a</u>
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              င်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCACTECCATGITGCICAAAAAACCATATAAAACAGIGTTATACCCATTAATGGTTCA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 COGSAGGACCOCOMOTOTOS COCORGACINO A ACAAACAGAAACAGATTTTACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OF AAATTCLITAACTTACTAAAGAAATTGATACCAGTACCAAAGTIGATAATGCTATGA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACITIGGGAGAAAGITICAICIGIGGAGGAGGAGTATIGGGA 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      461 AGACTGTTGAAGAAGTATGATGTTTGTTTGGACTCTTCAGCAAATTGGAAAGAGACATGT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481 GIPCTAAAAGITIPTI BGATGACATITITATI AGCTAAAGGGGAAGTATI ACAAATGGAA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 4109; DB 10; Longth 347;
Pred. No. 0;
0; Mismatches 65; Indels 114;
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              274 GOLLALALLCAAAAGAAAAAGGAAGTGTGTGGGGGAATCL
          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
                                                                                                                                      REFERENCE/LOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO: 42:
                                                            PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                           REGISTRALLON NUMBER: 41,071
                                                 TASSIFICATION: + Unknown>
                                                                                                                                                               TELEPHONE: 512/418 4000
                                                                                                                                                                                                               LENGIH: 4447 base pairs
                                                                                     FILING DATE: . Unknown.
                                                                                                ALTORNEY/AGENT INFORMALTON: NAME: Hibler, David W.
                                                                                                                                                                        TELEFAX: 512/474 7577
INFORMALION FOR SEQ ID NO: 42:
                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                             84.88
14.88
                                                                                                                                                                                                                              TYPE: nucleic acid
                                                                                                                                                                                                                                                                                            . 25H t
                                                                                                                                                                                                                                                      FulloGY: limear
                                                                                                                                                                                                                                                                                                                                                                      Matches 4282; Conservative
                                                                                                                                                                                                                                                                              NAME/KEY: (108)
                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
                                                                                                                                                                                                                                                                                            LOCATION:
                                                                                                                                                                                                                                                                                                                    09 469 522 42
                                                                                                                                                                                                                                                                                                                                             Ouerry Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \frac{2}{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \Xi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \frac{2}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
```

```
.021 CCTCCACACACACACATTAGACTGTTATGAACATATCCAACAATTAATGATTTTA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081 AATTCAGCAAGTGATCACAACCTTCAGAAAATCTGATTTCCTATTTTAACAACTGCACAGTG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141 AATCCAAAAGAAGTAFACTGAAAAGAGTGAAGGATATAGGATACATCTTFAAAGAGAAA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1201 TTTGCTAAAGGTGTGGGACAGGGTTGTGTCGAAATTGGATGACAGGGATACAAATTGCA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1261 GTTCGCTTGTATTACCGAGTAATGGAATCCATGCTTAAATCAGAAGAAGAAGAACGATTATCC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321 ATTCAAAATTTTAGCAAACTICTGAATGACAATTIIICAIAIGICITTAIIGGCGTGC 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381 GCTCTTGAGGTTGTAATGGCCACATATAGCAGAAGTACALCAGAAATGTTGAFTCTTGGA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1441 ACAGATTGTGTGTTTGCGATGGATTGTGAATGTGCTTAATTTAAAAGGGTTGATTTTTAG 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1507 TETEGATCTETATETAAACAATCAAAGGACCGAGAAGGAAGTAGATGTEGAATGTGCL 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961 ACTITITGAARACAGAGAGACACAGGAAAARITAARCITGATGAAGAGCIGAAFGAATT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1087 TETROCTAAAGPROTOGGACAGGTIGIGIGIGIGGAAATTGGATOACAGGATAAAAYI1GGA 1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1207 ATTCAAAATTTTAGCAAACTTCTGAATGACAATTTTTCATATGTCTTTATTGGGGGC 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1387 AAAGTGATCGAAAGTTTTATCAAAGCAGAAAGCAACTTGACAAGAGAAAAATGATAAAAAGAT 1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1447 TTAGAACGAFGTGAACATGGAALMOTTGGALMOTTGGALMOTTTPAGATTGAMTTTA TSOK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1621 TTTGATCTTATTAACAATCAAAGGACGAAAAAGGACAATGATGATGACGTTGAAYCTGAT 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1147 GTTCGCTTGTATTACCGAGTAATGGAAFGGATGGTTAAATGAGAAGAAGAAGAATTATGC 1206
                                                                                                                                                                              721 GATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAGAA 780
                                                                                                                                                                                                                                                                                                 78] AATGITTATTTCAAAATTITATACCITTITAIGAATTCTCTTGGACTTGTAACALCTAAL H40
                                                                                                                                                                                                                                                                                                                                                                                                                 841 GGACTICCAGAGGTIGAAAA1CTITGIAAAGGAIAGGAAGAAAITIALGIIAAAAAIAAA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      907 CCTCCACACTCCAGTTAGGACTGTTATGAACACTATCCAAAAATTAATGATGTTTTA 966
                                                                                                                                                                                                                                      607 GATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAAA 666
                                                                                                                                                                                                                                                                                                                                901 GATCTAGATGCAAGATTATTTTGGATCATGATAAAACTCTTCAGACTGATTCTATAGAC 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    847 AGTTTTGAAAGACAGAGACGACGAAAAAAGTAACCTTGATGAAGAGGTGAATGTAATT 906
487 ICACCTCCCATGITGCICAAAGAACCATATAAAAACGCIGTTATACCCATTAATGGTTCA 545
                                                           a
```

GTAAGA	TOTCCAANGAAAAAAAGTTCAACTAGGGGGGAAAATTOTACTGCAAAAGGAAAG 1800 	HUCCAGACCCAGAAGCCAIT HILLIHHHHHHHH HCCAGAACCAGAAGCATT	ARTGTATORROCTAROTORROGERAARACACITTGTGAACGOCTT 1920 	ARCCAGAATTAGAACATATCATCTGGACCCTTTCCAGGAGACCCTGCAG 1980    11	TGAACTCATGAGAGACAGTTTGGAOCAAATTALGATGEGGTCCATGTAT 2040 	IOCAAAGEGAAGAAFAAAGGCTTAAAFEGAAATGAFTGTAAGAGGAFAGAAG 2100 	FICTCATGOLGTORGAGGAGAATTCAAACGTGTTTTGATCAAAGAAGGGGGTAT 2160 	aktatyctataantysseteteatseasaantsaaaaaaattys 2220 	STANCITGLCACCAAHACCHCACAHTCCHCGAAGCCT 228 FELFEFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	BANTATOTATATATANOGOTO 234	ANGGEOGRAN NEGARANAAN SACTECAAGATCA 240 	ATCAATTOOTOAATCATTOOGACTTOTOAGAGTTOOAGAAATAAAT 2460, HIIIHHHHHHHHHHHHHHHHHHHHHHHHHH ATCAATGOTGAATCATTOGAAATTTOTAAAAAAAAAAA 2446	ORTRITORITOAAAARAARTOITGAAARAAAGAAAOOOTOIT 74 ELEEELEELEELEELEELEELEERAAAAAAAAAAAGAAGAAAGAAAGAAAGAAAGAAAGAA	ACTGAAAAAACTAGGCTTTGATATTGAAGGATCAGAAGGAGGAGGGAG	DATCTOCAGGAGAGICGAAATTICAGGAGAAACTGGGAGAAAIGAGTTGIAGTGGAAGA 2640 	GGATACTTCAAACAAGGAAGAAATGA 279 	ACTCARRAPORTRAGIGARAR CHATACACCTCTEGATICATISTCTCTCACACATG 2769 	GGGAGATTTAAT.
	41 GIAAGA 	7 æ	47 IIIIA 1111 A 1111 A	CTGTCTGAGG	1 AATGAGTA 	1 GGCATA 7 GGCATA 7 GGCATA	ol GATOT TILLE 87 GATOT	1 GATTCTATTATAGT 	21 CAGIAIGE 1111111 07 CAGIATGE	1 TACAASTT 	41 AAGAG 1411 27 AAGAG	= f;	1 CAGAIGGIAIGI 	AAACC                 AAACC	CATCT TITLL CAICT	8 = 8	1 367 7 567	11.

```
े 8 1 ह
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2767 GTCATTGTTATTATACAAGATTGAAAATCTTGTGTAAATCCTGCCGATTTAAAAAGTTGT 2826
                                                                                                                                                         2941 AGCAGATTGTTTCCTCTTCCAAAGTAAAATTGCTGTGTTTTATGGATAGTAAGAATGGC7 3000
                                                                                                                                                                                                                                                                                                                                                                                                                               3181 CACCAAAATTATCCTGAACTCTTCTGCAAAAATGGATATTATTAGAAATTAGAAAAT 3240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3301 TITATAAAATTITGGTTTTAATTAAATAAAAGCTGGAAGCAAAGTATAACCATATGATAC 3360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3187 TTTATAAAATTTTGCTTTTTAATTAAATAAAGCTGGAAGCAAAGTATAACCATAIGATAC 3246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3361 IATCATACTGAAACAGAITTCATACCTCAGAAIGIAAAAGAACTTACTGATTATTT 3420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3247 TATCATACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGALTATTTL 3306
                                                                           2881 CHCATTGTTATTATACAAGATTGAAAATCTTGTGAAATCCTGCCATTTAAAAAGTTCT
                                                                                                                                                                           3001 FTAMAGUGGGAGTOTTMATAANAGAGGGGTOTGAGTACTTTGCCTTGTTTGTAGGAL
                                                                                                                                                                                                                                                       2887 CTAGACIGGSAGIOCTGATAAPOPAGGOTTGTOTGAGTAGT FGCGTTGTT FCTAGGA.
                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION - MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3421 CTTCATCCAACTTATGTTTTAAATGAGGATTATTGATAGT 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COKRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA: APPLICATION NUMBER 18,794,469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE. Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 22-Dec-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Septembra 45, Application PS/04459522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: F.C. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hu, Shi-Xuc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
21P. 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
US-09-469-522-36
                                                                                                                  â
                                                                                                                                                                                              ΩΩ
                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                              οy
                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                             D
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        òζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
```

```
.f3
                                                                                                             a
                                                                                                                                               ò
                                                                                                                                                                             qq
                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                            ó,
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                           ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 955 ATAGACAGITITGAAACACAGAGAACACGAAAAAGTAACCITGAIGAAGAGGIGAAT 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1015 GIAAFIFCEFCAACACACAGIFAGGACEGITATGAAGACHAFCCAAGAATHAAFGAFG 1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        67 AYALGIGAACITATATITGAGAGAGAGAGTIGGATATGAAATAAATTGT 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  535 ATGGAAGATGATGTGATTTCAGTTAATGCTATGTGTCTTGACTATTTTATT 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   187 ALGGAAGALGAFGLGGFGAFTTCAFTTCAGTFAATGCFAFGTGFCGTTGACTATTTTATT 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B35 TCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATACGAAGAATTTATCTTAAA 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               487 TCTAATGGACTTCCAGAGGGTGAAAATCTLFCTAAACGATAGGAAAATTTATCTTAAA 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              895 AATAAAGATCTAGATGCAAGATTATTTGGATGATGATGATAAAACTCTTCAGACTGGTTCT 954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               547. AATAAAGATCTAGATGCAAGATTATTTTTGGATCATGATAAAACTCTTCAGACTGATTCT. 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            607 ATAGACHTTIGAAACACAGAACACCACGAAAAAGTAACCTTGATGAAGGGGGGAAT 666
                                                                                                                                                                                                                                                                                                                                                                                                                       455 ATGLCAAGAMTGLEGAAGAAGTATGTALIGTETGCACTCTTCAGCAAATTGGAAAGG 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       475 GGALLOGIGCTAAAAGTITCTIGGATCACALTITLATTAGCTAAAGGGGAAGTATTACAA 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   595 AAAGEGEGAGGEGGAFGFEGGEGAAAGAAGGATATAAAAGGGGGTGTFATAGGGATTAAT 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                247 AAACTGTGAGGTGCGALGTIGGTGAAAGAAGGATATAAAACAGGTGTTATAACCCATTAAT 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                655 UGLICACITICARATORANORANDEGAGGICAGAACAGGAGIGCAGGGATAGGAAAAAACAACTA 714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 715 GAAAA EGAT ACAAGAA FI A FI GAAGI TE FEGTAAAGAACA FGAA FGI AA FATAGATGAG - 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                775 GEGAAAAATGITIAITICAAAAAIIITAIAGACTITIAGAATTGITGAATTGITGIAAGA 834
                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 10; Length 3113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                          :
C
                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                          REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                       100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                        Score 4107;
                                                                                                                                                                                                                                                                                         LOCATION: 7..2349
SEQUENCE DESCRIPTION: SEQ ID NO: 36:
                 APPLICATION NUMBER: 09/026,459
                                                                                                                        FELEPHONE: 512/418-3000
FELEFAX: 512/474-7577
                                                                                                                                                                                           LENGTH: 4114 base pairs
                              FILING DATE: «URKNOWD»
ATTORNEY/AGENT INFORMATION:
                                                               NAME: Hibler, David W.
                                                                                                                                                            INFORMATION FOR SEQ ID NO: 36:
                                                                                                                                                                                                                          STRANDEDNESS: Single
                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                            IYPE: nucleic acid
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                         88.68
                                                                                                                                                                                                                                                                                                                                                                                        Matches 4107; Conservative
                                                                                                                                                                                                                                            Tobology: Linear
                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                            F.A.LIKE
                                                                                                                                                                                                                                                                                                                         18 09 469 522-36
                                                                                                                                                                                                                                                                                                                                                         Ouery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \stackrel{>}{\sim}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
```

```
1135 ACAGTGAATCCAAAAGAAAGTATACTGAAAAGAGTGAAGGATATAGATACATCTTTAAA 1194
                                                                                                                                                                                                                                                                                    1195 GAGAAAITIIGGIAAAGGIGIGGGACAGGGTIGIGIGGAAAITIGGAIGACAGATAGAA 1254
                                                                                                                                                                                                                                                                                                                                                                                                                                255 CTTGGAGTTCGCTTGTATTACCGAGTAATGGAATCCATGCTTAAATCAAGAAGAAGAACGA 1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1375 GCGTGCGCTCTTGAGGT FGTAATGGCCACATATAGCAGAAGTACATGTCAGAATGTTGAT 1434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1027 GCGTCCGCTCTTGAGGTTGTAATGGCCACATATAGCAGAAGTACACATCTCAGAATCTTGAT 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1495 ITTTACAAAGTGATCGAAAGTTTTATCAAAGCAGAAGCAACTTGACAAGAGAAATGATA 1554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1207 AAACATITAGAACGAIGIGAACATGGAAIGAIGGAAICGITGGAIGGITOTCAGAITOA 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1675 TCTGGTTGTCGTCTTCGTCTCCAGAAIAATCACAGAGGGGAGAIATGTT 1734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1795 GCAGAGACAAGCACCTCAGCCTTCCAGACCATTGAAAPTTAAATTT 1854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1855 TCACTGTTTATAAAAAAGTGTATGGGCTAGGCTATGTCGGGCTAAATACACTTTGTGAA 1914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1915 CCCCTTCTCTCTCTCACACCCAGAATTAGAACATATCATATTGGACACTTTTTCTAGAAAA 1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1627 CTGCAGAATGAGTATGAACTCAFGAGAGAGAGTTTOGAGGAAATTATGATGTGTTGTC 1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1315 ITATCCATTCAAAATTTTAGCAAACTTCTGAATGACAAGATTTTTGATATGTCTTTATTG 1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    967 TTATCCATTCAAAATTTTAGCAAACTTGTGAATGACAACATTTTTGATATGTGTGTTTATTG 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1735 TCTCCTGTAAGATCTCCAAAGAAAAAGGTTCAACTACGCTGTAAATTCTACTGCAAAT 1794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1567 GGGCTTCTGTCTGTCTGAGCCCAGAATTAGAACATATCATCATCTGGAGCCTTTTGCAACAAAACATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2035 ATGTATGGCATATGCAAAGTGAAGATATAGACTTAAATTCAAAATCATTGTAAAGGA 2094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2095 TACAAGGATCTTCCTCATGCTGTTCAGGAGACATTCAAACGTGTTTGATCAAAGAAGG 2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1747 TACAAGGATCTTCCTCATGCTGTTCAGGAGACATTCAAAACGTGTTTGATCAAAGAGAG 1806
1075 ATTITAAATICAGCAAGIGAICAACCITCAGAAAATCIGATITCCIATTITAACAACTGC 1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      847 GAGAAATTTGCTAAAGCTGTGGGACAGGGTTGTGTGTCGAAATTGGATCACGATACAAA 906
                                         787 ACAGTGAATCCAAAAGAAAGTATACTGAAAAGAGTGAAGGATATAGGATACATCTTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1435 TCTGGAACAGAITTGTCTTTCCCATGGAITCTGAATGTGCTTAAAAAGCCTTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1555 AAACATITAGAACGALGIGAACAINGAALMATGGAALMMITIGGALGGMININAMALTMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1615 CCTTTATTTGATCTTATTAAACAATCAAAGGACCGAGAAGGACGAACTGAFCACCTTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1387 TCTCCTGTAAGATCTCCAAAGAAAAAGGTTCAACTAGGGGTGTAAATTGTAGGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1975 CTGCAGAATGAGTATGAACTCATGAGAGACAGGAGTTGGGAGGAAATTATGATGTTTCC
```

```
US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                   DP
                                                                                                                                                                                                                                                                                                                           1987 CCCCICAAGACTCCATATAAATTTCAGAAGTCTGCCAACACACAAAAAATGACTGCA 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2755 CACATCLCAPTCTATAAAPTTTPOCCACPTSTPTATGCACAATTTAATATATTTTGAGCT 2814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23.62 AN:ATCAACATITAAAAAAFSIGECTAECTAECTECAAAFGAATGTGATGAATGTGA 28.26
2155 GASTATGATTGTATTATAGTATTCTATAACTCGGFCTTGATGCAGAGAGGAAAAGAAAT 2214
                                                                                                                                                             2275 AGGIOTITACAAGTITICCTAGTICACCCTTACGGATTCCTGCAGGGAACATCTATATTICA 2334
                                                                                                                                                                                                                                             2047 AGATCAAGAATCTTAGTATGAATTGGTGAATCAATGGGGACTTCTGAGAAGTTGGAGAAA 2106
                                                                                                                                                                                                                                                                                                                                                                                                             2515 FOTOCTAAACACTGAAAAAACTACGCTTTGATATFGAAGGATCAAAFGAAGCASATGGA 2574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2575 ACTAAACALCTOOOAAAAATOOAAAHTTOAGOAGAAAOTGGOAGAAATGAOTHOTAOT 2634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2695 AAATSIACIATSTAGASASTTEBISTIAGASASTIGITAAAN POPERIAFESAFETGTGTGA 2754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2815 PITITIGIGGATATAAAATGTGGAGATGGAATTGTTTGGGTGATTGTTAAGGTAAGTGAA 2874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2836 AIGITASICATIGITAITIAIACAAGATIGAAAAICTIGTGAAAATCCIGCCATITAAAA 2934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2527 ATGLIAGICATTGTLATTIALACAAGATTGAAAATCTTGTGTAAATCGTGCCATTTAAAA 2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2935 ACTIGIAGPAGATIGITICCICITICCAAAGIAAAATIGCIGITITATGGAAGIAAGA 2994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2587 AGIIGIAGGAGATIGITIOOTOTIOCAAAGIAAAATIGOTGTGTTATGGATAGTAAGA 2646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2995 A LOGRECT ASAGREGEAS FEETENAMESECAGGEETIGTERACTETS GETTER 3054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (055 TAGGATATAGGTGATGTTTGCTCTTGTTTTATTATTATATGTATATTTTTTATAATTT 3114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4245 AAAAATIACTAATTTTACACATIAGATTTTATTTTACTATTGGAATCTGATATACTGTGT 3294
                                                                             ZZIS ALFILIGNAĞI ATGÇITTÇAÇBAĞĞĞĞĞĞTAĞĞTIYGITGAĞCAYGAÇAA YAÇCIYGAÇAYYĞĞĞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
```

```
3295 GCTTGTTTTATAAAATTTTGCTTTTAATTAAATAAAAGCTGGAAGCAAAGTALAACCALA 3354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6; indels 264; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2947 GCTTGTTTTATAAAATTTTGCTTTTAATTAAATAAAAGCTGGAAGCAAAGIATAACAAA
                                                                                                                                                       3355 IGATACTALCATACTACTGAAACAGAITICAIACCTCAGAAFGTAAAAGAACTTACTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 10; Length 3383;
                                                                                                                                                                                                                                                                        3067 TATTTTTTTATCTATCTATCTTATGTTTTTTAAATGAGGATTATTGATAGT 3113
                                                                                                                                                                                                                                                  3415 TATTTTCTTCATCCAACTTATGTTTTAAATGAGGATTATTGATAGT 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA.
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #6.6%, Score 2996.4;
92.4%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEFFKENCEZIVÜCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYFE. FLUEDY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DGS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 09,7026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 48, Application US/09469522
; Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 3383 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W.
REGISTRATION NUMBER: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ROX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shi - Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 3284; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SHQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET P O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TENORGE (SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: TX
```

4.0	6.1	GAAPOOOGGGACOGOOGCOCCTCCTGAGGAGACCAGGGAGAAGAAGAAGAAGAAGAAGAAGAAGA	120
32	3	DAACTOCO GOCACO OD OCO COCO COCO COLO COLO COCO COCO	120
5	171	COGGAGGACTGCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	180
1-1	121	CCGGAGGACCIGCCTCTCCTCAGGCTTGAGTTCAAGAACAGAAGAACGAATTTTACT	180
5	×	0/ALTATGLCAGAAALTAAAGALACAGGLCAGGCAGAGAGAGAGGCTTGGTT	233
4:	ΞΞ	GATIATGI CAGAAATTAAAGATACCAGATCATGI CAGAGAGAGAGAGTGGTTAACTTGG	240
<u>۲</u>	7 14		233
â	241	GAGAAAGTTTCATCTGGATGGAGTATTGGGAGGTTATATTCAAAAAGAAAAACTG	300
>	7 14		267
135	£03	801 POGGSANTOTOTITATIONAGONGTIGACOTAGATGAGATGICGTICACTITACT 360	360
ογ	26.8	GAGGLACAGAAAACA LAGAAA LGAGTG LGCA LAAATTG TTLAACTTACTAAAAGAAATT	327
D.E.	194	GAGCTACAGAAAAAAAAAATGAAATGAGTGGGTAAAATTGTTTAAGTAAAAAA	420
7.7	128	GATACCASTACCAAAGTIGATAATGCTATGTCAAGACTGTTGAAGAAGTATGATGATTG	387
âc	4.2.1	GATAPPAG FACCAAAG FI GATAA I GCFA I GFCAACACTIGIT GAAGAAGTA FI GTTAFFI G	480
, 7	ž H	TTGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTTATATATTTGACAACCCAGC	447
17.	481	TTTGGAGTCTTCAGGAAATTGGAAAGGACATGTGAACTTATATTTGACACAACCCAGG	540
67	4 4 H	ACTITICGALATOLTACTO DA ALLA DA LITOLTO CATITICO TA DA	507
DP	541	AGTTCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACATTT	009
ογ	508	TTATTAGCTAAAGGGGAAGTATTACAAAATGGAAGATGATCTGGTGATTTCATTTCAGTTA	267
<b>a</b>	601	THATTAGCTAAAGGGGAAGTATTAGAATGGAAGAAGGAAGTGTTTTTT	099
	568	A GOLTATGE GEORGE AND THE TATE AND TO TO CONTROL OF THE FOLLOWING THE FOLLOW OF THE FO	627
ą.	661	ATGCTATGTGTCCTTGACTATTTATTAAACTCTCACCTCCCATGTTGCTCAAGAACAACCA	720
5 6 7	6.28	- FATAAAACAGOLG FFATAPPCATTAATGGTTCAGCTCGAACACCCAGGCGAGGTCAGAAC	687
<del>2</del> 5	771	TATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	730
ć O	688	AGGACTGCACGGATAGCAAAACAACTAGAAAATGATACAAAAATTATTGAAGTTCTCTGT	747
q.	7.41		730
6.70	748	- AAAGAACATGAATGIAATATAGAGGGGGAAAAAATGTTTATTTCAAAAAITTTATACCT	807
e c	7.41		7.30
$\circ_Y$	808	TITIA EGAATTOLOTTOGACTTOTAATGAACTTOCAGAGTTGAAAATCTTTOT	867
101	7 41	GGFCGAATTCTCTTTTTTTTTTTTTTTTTTTTTTTTTTTT	789
ςò	868	AAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTGGAT	927
40	067	290 AAAPGAAGAAAATITATETTITITITITITITITITITITITITITIT	846
Š	874,	CARGATAAAACHCHCAGACHGATTCTATAGACAGTTTTGAAACACAGAAGAACACACGA	987
î. F	850	CATGATAAAACTCTTCAGACTGATTCTATAGACAGT	606
67	988	AAAAGTAACT GATGAAGAGGGAATGTAATTCTTCTCTCCACACTCCAGTTAGGACCTTT	1047
101	016		9

δ i	1048	ATGAACACTATCCAACAATTAAATGATTTTAAATTCAGGAAGTGATCAACATTCAGAA 1107	
qq	0/5	ATGAACACTATCCAACAATTAATGATGATTTTAAATTCAGCAAGTGATCAACTTTCAGAA 1029	
cy G	1108	108 AATCTGATTTCCTATTTTAACAACTGCACACHGAAFCCAAAAGAAATTATATACTGAAAGA 1167 	
δ d	1168	GIGAAGGATATAGGATAGUTTAAAGAGAAALLIGGTAAAGGTGTGGGAAAGGGGTGT 1227	
<b>Q</b>		GIGAAGGALAPAGGALACATGITTAAAGAGAATTIGCLAAAGCTGLGGGACAGGILGT 1149	
ò a	1228	GTGGAAATTGGATGATGATAGAAGTTGAATTTGAATTTGTATTTGTATTAGTGATTAGTGAATTATGAAT TILLILIILIILIILIILIILIILIILIILIILIILIILI	
ογ	1288	TCCATGCTTAAATCAGAAGAAGAACGALTALCAL HZAAAATTTLAGYAAACLI CLGAAT   1447	
qq	1210	TCCATGCTTAAATCAGAAGAAGAAGAATTATACAATTATAGAAATTATAGAAATTATCAAATTATAGAATATATAGAATATATAGAATAAATTATAGAAATAAAAATATAGAAATAAAAATAAAAAA	
Οy	1348	GACAGATTTTTGATATGTCTTJATTGQCGTGTTTTGAGGTTGTAATGTTTTTTTTTTTTTTT	
qu	1270	GACAACATTTCATATGTTTATTGCGTGTGTTTTTTTTTT	
ò	1408	AGCAGAAGIACATCICAGAAICIIGATICIGGAACAGATITGICIII COLONO 1467	
qu	1 4 40	AGNAGAAGTEETETETETETETETETETETETETETETETETE	
Oy	1468	AATGEGGTTAATTEAAAGGCTTTGATTELLAAAAAGGGAFGGAAAAGLITALAAAAAGA 1527	
qq	1390	AATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATGATGATGATGATGAAGGC 1449	
οy	1528	GAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAAGGATGTGAACATCGAATGAAT	
qu	1450	GAAGGCAACTIGACAGAGAAATGATAAAAATTAAGAAGGATGTGAATAATTATT	
ολ	1588	GAATCCCTTGCATGGCTCTCAGATTCACCTTATTGATCTTATTAAACAATGAAAGGC 1647	
qn	1510	GAATCCCTTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTAAACAATCAAAGGAC 1569	
Οy	1648	CGAGAAGGACAACTGAACTTGAATCTGCTGTTAATCTTCTTCTCTCTAATT 1707	
qq	1570	CGAGAAGGACCAACTGATCACCTTGAATCTGTCTTAATCTTCTCTCTC	
Oy	1708	AATCACACTGCAGAGATATGTATGTTTCTTCTTGTAGAGATCTCCCAAAAAAAA	
qu	1630	AATCACACTGCAGCAGATATGTATGTTTCTTCTTTTTTTT	
δ	1768	ACTACGOGIGIANATICIACIONAAATGCAGAGAGAACACAAGCAACCTCAGACC 1827	
q0	1690	ACTACGCGTGTAAATTCTACTGCAAATGCAGAAAAAAAAA	
Qy	1828	CAGAAGCCATTGAAATCTACCTCTTTTCACTGTTTTATAAAAAAGTGTATGGCTAGCCTBB7	
qq	1750	CAGAAGCCATTGAAATCTACCTCTTTCACTGTTTTATAAAAAGTGTATCGGCTAGCC 1809	
Οy	1888	TATCHCOCTAAATACACTTTGTGAACGCCTTCTGTCTGAGCACCCAGAATTAGAACT 1947	
qu	1810	PATCHCCGGCTAAATACACTTTGTGAACGCCTTCTGTGTGAGCACCCAGAATTAGAACTTAGAACTTAGAACTTTGTGA	
δ	1948	ATCATCTGGACCCTTTTCCAGCACACCCTCAAAAATGAATTGATCAAGAGAAAAAAAA	
00	1870	ATCATCTIGGACCITTTICCAGCACACACTOTATATATATATATATATATATATATATATAT	
οy	2008	CATTICGACCAANTALCALGIGITICCA (GLATGCALATGCAAA) GAAGAAATALAGA 2067	
qq	4930	CATTTGGACCAAATTATGATGTTCCATGTATGGCATATGCAAAATGAAAATATAGAC 1989	
ОУ	2068	CTFAAATTCAAAATGATTGTAACAGCATAGAAGATCTTCCTCATGCTGTCAGAGACA 2127	
qq	1990	CTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCTGTTTTAGGAGACA 2049	
οy	2128	TTCAAACGTGTTTTGATCAAAGAAGAAGAGTATGATTGTATTATAGTATTGTATAACTGG 2187	

```
Z188 STOTTOATSTRAMSTTSAAAATAAAITHTFARATAISTISTISTASTASSAASSAAS 2247
                                                                                                                                                                                                                                                                                                                                                                                                                                   2170 ITGTCACCATACTEATATTET CAAASOTT FALAASITED LAAGITAAGGG 2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2607
                                                             2050 ITCAAAGGIGTITTGATCAAAGAAGAGGAGTATGATTGTATTATAGTATTGTATAACTGG 2109
                                                                                                                                                                                                                                                                            2230 ALICCIGGAGGAAAATTTATATATTTGACCCTGAAGAGTGGATATAAAATTTGAGAAGGT 2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2290 CIGCCAACACAACAAAAAIQAÇITCAAAATCAAAAATCTTAGITHIIIIIIIIIIIII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  247c ATTARANGATGAGATGAGGAGATGAGGAGATGTGGGAGGAGGGGGGAATTTGAG 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25.30 CAGAAAUTGGGGGAAATGACTTCTACTGGAACAGAATGGAAAAGCAGAAAAGGAATGAT 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2728 GIACACOTOTGGAITGATGTCTCACAATGTAACTGACTAACAUTGOCAAG312TGT 2787 (111)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2248 ITGICACCAATACCTCACATTCCTCGAAGGGTTTAGAAGTTTGCTAGTGGTTAGGGG 2307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2308 ALTICLIGRAGGGAAGAFÇTAFFAFFFÇAÇÇÇTGAAGAGFÇÇAFAFAAAAFFTCAGAAGGF 2367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26.5% GLACACCICI GGATTCATTGICHOPOAGATGTGACTGTATAACTTTGCCCAGGITGTGT 2799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2788 ITATGGGGAGATTVAATATGTGGGGGGGGGATATAAAATGTGGAGGGAATT 2847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2848 GIIIGGGIGATICCIAAGGGAGTTGAAATGTTAGTCATTGTTATTTAIACAAGATTGAAA 2907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2770 GILIOSCHARTIGGTAAGGGAATGGTAAGTGATGTTATTTATAGAAGATTGAAA 2829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2899 AAIIGGISTGCIIIAIGGAIAGIAANAAATGGCCCTIAGAGTGGGAGTCTTAAIAACCAGG 2849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2956 CCIGICIGACIACIFICACIATORIA DE PARAGRAPA A CARACAMA PERAGRAPA PARAGRAPA 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2908 ATCTINICIDAAATCTIONAATIIAAAAAGIIGIAGGAAATINITICOTOTIOGAAAGIAA 2967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2968 AATEGETGETTTTTATGGATAGTAAGAATGGGGTTAGAGTGGGAGTGCTTGATAAGGGAGG 3027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3028 CCIGICICACIACITIGOCTOTOTO OTRAGARANGOTO OPOCOTOTOS 3087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3148 ATCTICCAAATGCAATTTGATTGACTGCATTGACTGAAATTATATGTGAAATGGGGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   307% ATCITICGAAAIGCAAITIGAITGACTGCCCATITGACGAAAAIIATCCIGAACTGTGTGC 3129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4208 AAAAAIGGAFATTATTAGAAATTAGAAAAATTAGTAATTTTAGAGATTAGATTTTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2548 AIIGAAGGAIGAAGGAGGAGTGGAAGIAAAGAIAAGAGIGTGGAAGIGGGAAIIIGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               £
```

```
3130 AAAAATGGATATTATTAGAAATTAGAAAAAAAATTACTAATTTTTACACATTAGATTTTATT 3189
                                                                          3190 TIACTATTGGAATCTGATATACTGTGTGTGTTTTAIAAAATTTTGCITITAATAAAI
                                            3268 ITACTATIGGAATCTGATATACTGTGTGTTTTTATAAATTITGCTTTAAAT
                                                                                                                                              3328 AAAAGCTGGAAGGAAGTATAACCATATGATACTATGATACTACTGAAACAGAFFFCATA
                                                                                                                                                                                        3250 AAAAGCTGGAAAGCAAAATATAAAATATAIGAIACIAIACTAAAACAGAATTTCAIA
                                                                                                                                                                                                                                        3388 COTCAGAATGTAAAAAAAAATTACTGATTTTTTTTTATGATGTTATGTTTTAAATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Benedict, William F.
2hou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 10; Lenath 4477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      indels 270;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM, FC DOSZMS-DOS
SOFTWARB: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 92.2%; Pred. No. 0;
Matches 3.2%; Conservative 0; Mismatch.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 7..2613
SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OFFRATING SYSTEM, FC DG3/MS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: use 21: 77210-4433 COMPUTER REALABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . Sequence 46, Application US/09469522
; Patent No. US20020151461A1
, GENERAL INFORMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ENCIH: 3377 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                 3370 GGATTATTGATAGT 3383
                                                                                                                                                                                                                                                                                                                                    3448 GGATTATTGATAGT 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LING DATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-469-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-46
                                                                                                                                                                                                                                                                                     q
```

	L CONCILCATO CONTECTAAAA POETENDAAAAAA OO
3 3	HANDOPTERGEACHGEGEGEGEGECETECTEAAGAGACECAGAGAGAGAGAGAGGGG 120 HITTELLITELLITELLITELLETELLITELLITELLITE
121	CTGGAGGACTGCTCTCGTCAGGTTGAGTTGAAGAAACAGAAAGAA
= = = = = = = = = = = = = = = = = = =	OCATTATOLOAGAAATTAAAGATACCAGATCATOLOCAGAGAGAGAGCTGGTT 233 
244	GAGAAAGTI ICATC ISTECATEGAATTI GAGAAGTTATATTCAAAAGAAAAGGAACTC 300
2.44	
26.B	FORBITACIAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAAAATT 327 FEELILIIIIIIIIIIIIIIIIIIII GAGTTACAGAAAAAAAAAAAACAGTGTCCATAAATTCTTTAACTTACTAAAAAATT 420
12H 121	GATACCAGIACTAAAGTIGATAATGCIATGICAAGACIGTIGAAGAAGTATGATG 387 
ж 4 н 1	TTESPACTCTFCARSAATTGGAAAGGACATGTGAACTTATATATTTGACACACCCAGS   447
44 H	AGLECCATAL CLACAGAAALAAALTGEGGALIGGEGGTAAAAGTIIGIIGGALGACATTT 
508	
4.	
5.68	ATG:TATGTGTCTTGACTATTITATIAAACTCTCACCTCCCATGTTGCTCAAAGAACCA 627
54.9	848
6.28 5.43	TATAAAAPAGUGTTATAPAPGATTGACCTCGAACACCCAGGCGAGGCCAGAAC 687 
6.88 6.04	H ROGASTGCACOSATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGT 747 
748 664	AANGAN'AIGAATGIAATAIAGAGGGGGAAAAATGIITATITCAAAAATITTAIACCI 807 
HOH 124	FITATGAALICTCTTGGACTTGTAACATCTGACAGCTTGCACAGGTTGAAATCTTTCT 867 
784	- AAN GATA GAAGAAATTTATCITAAAAATAAAGATCIAGATGGAAGAITAITTITGGAI-927 
92H 844	FORFGATAAAACTGTTCAGACTGATTCTAGAACAGTTTTGAAACACAGAAACACACGA 987 
885	s AAAAGTAAPPELTEGATGAAGGEGAATGEGATTECTECACACACTECAGTTAGGACTGTT 1047

ОС	404	TTEELLEELEELEELEELEELEELEELEELEELEELEELE	46.4
ογ	1048	ATGARCACIATORACAATTAATGATGATTITAAATTCAGCAAGTGAACTTCAGAA	1107
qu	964	ATGAACACTATCCAACAATTAATGATGTTTTTAATTCAGCAAGTGATCAACAAA	1024
ογ	1108	AATCTGATTTTCCTATTTTAGAACTGCACACTGATCCAAAAGAAAAA	1167
qq	1024	AFFORMITTECTATITTAACACTGCACACGCAAACCAAAAGAAAGTTTTTTAACACACAC	1084
Ċγ	1168	GIGAAGGATATAGGATACATITAAAGAGAAATT LOTTAAAGCLGLGGGAAGCTGT	1227
qu	1084	GIGAAGGATAFAGGATACATCTTFAAAGAGAAATTTGCTAAAGCTGTGGACAGGGTTGT	1143
λŌ	1228	GTCGAAATTGGATCACAGGATACAAACTTGGAGTTCGCTTGTATTACCAGTAATGGAA	1287
qu	1144	GTCGAAATTGGATCACAGGGATACAAACTTGGAGTTGGTTTGTATTACCGAGTAATGGAA	1203
ολ	1288	TCCATGCTTAAATCAGAAGAAGAAGATTATCCAT ICAAAATTTTAGGAAACTTCTGAAT	1 447
qo	1204	TCCATGCTTAAATCAGAAGAAGAAGGATTATGCATTCAAAATTTTAGGAAACTTCTGAAT	1263
Οy	1348	GACAACATTTTCATATGTCTTTATTGGCGTGCCTCTGAGGTTGTAATGGCCAATATAT	1407
Q()	1264	GACAACATTITITITITITITITITITITITITITITITIT	1323
QY	1408	AGCAGAAGTACATCTCAGAAATCTTGAATTTCTGGAACAGATTTGTCTTTCCCATGGATTCTC	1467
qu	1324	ACCACANGENCE CACACANTERE ELECTRICAL ELECTRICAL EL CONTROL EL CONTR	1 38 3
Oy	1468	AATGIGCTTAATTTAAAAGCCTTTGTTTTTTTTAAAGGGATCGAAGTTTTAAAAGGA	1527
QD	1 384	AATGTGCTTAATTTAAAAGCCTTTGATTTTTAAAAGTGATGATGTTTTTTTATGAAAGGA	144 4
Oy	1528	GAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAAAGGATGTGAAGATGGGAATGTG	1587
<b>q</b> ()	1444	GAAGGCAACTTGACAAGAAGATGATAAAACATTTAGAAGGTGTGAACATTGAATGATGT	1503
ογ	1588	GAATCCCTTGCATGCTCTCAGATTCACCTTATTTGATCTTAAACAATCAAAGGAC	16.47
<b>q</b> (1	1504	GAATCCCTTGCATGCCTCTCACTTTATTTGTTTTTTTTTT	1564
Óy	1648	CGAGAAGGACCAACTGATCACCTTGATCACTTAALCTTCCTCCTTCTTAALCTTCCTCCTCTCTCT	1707
qu	1564	CGAGAAGGACCAACTGATCTGATCTGCTTGTCTTATCTTCCTCTCAGAAT	1624
Oy	1708	AATGACACTGCAGCAGATATGTATCTTTCTCTGTAAGATCTCCAAAGAAAAGGTTCA	1767
<b>q</b> 0	1624	AATCACACTGCAGCAGATATGTATCTTTCTCTGTAAGATGTCCGAAAGAAA	1683
ò	1768	ACTACGCGTGTAAATTCTACTGCAAATGCAAGAACAAAGAACCTCAGCCTTCCAGACC	1827
Q()	1684	ACTACGGTGTAAATTCTACTGCAAATGCAGAAACACAAAGTAAACTGAGTCTTAGAGGC	174 \$
δ.	1828	CAGAAGCATTGAAATGTACTGTTTGCTGTTTATAAAAAGTGTATGGGGG	1887
qq	1744	CAGAAGCCATTGAAATCTAGCTGTTTGACTTTTATAAAAAGTGTATGGGCTAGCC	1804
οy	1888	TATCLCCCCHAAATACACTTTGTGAACCCTTCTGTCTGTGTGACGAACTAGAAAT	1447
<b>q</b> 0	1804	TATCLCCGCCTAAATACACTTTGTGAACGCTTCTGTCTGAGCACCCAAAATTAGAACAT	186.4
Ś	1948	ATCATCTGGACCCTTTCCAGCACACCCTCCAGAATGAGTATGAACTCATGAGACAAG	2007
<b>q</b> c1	1864	ATCATCTTGGACCT FTTCCAGCACACTCTGCAGAATGAGTATGATCTGTGAGAGAGA	1424
ογ	2008	CATTICGACCAA ITAIGAIGITICAA GIA IGOAA A IGCAAGIGAAGA ITAIGA ITAIGA ITAIGA ITAIGA ITAIGA ITAIGA ITAIGA ITAIGA I	2067
역G .	1924	CATTTGGACCAAATTATGATGTGTTCCATGTATGGCATATGCAAAGTGAAGAATATAGAC	1983
<b>к</b> о <b>;</b>	2068	068 CTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGTTGTTCAGGGAA 212	2127

```
2543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2883
                                                                                                                                                             2344 FTGGGGAPTFFSAGAAAPTPPSAAAAAAAAAAAAAAAGGGAGATGFFHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2727
1984 CITAAATTCAAAATCATTGTAACAGCATAAGAAGGATCTTCCTGATGCTGTTGAGGAGAGA 2043
                                                                                                                                                                                                                                                      2164 TTGTCACCAATACCTCACATTCCTCGAAGCCTTACAAGTTTCCTAGTTAGCCCTTACACCCTTACAAGTTTCCTAGTAAGCC 2233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2704 TTATGGCCACATTTAATATCTTCAGCTCTTTTGTGGGTATAAAATGTGCACAGTGCAATT 2763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2908 AFCEIGIGIAAATGCIGGGATFIAAAAAGTIGFAGGAGATGTTGTTGTGTGTGTAGGAAGTAA 2967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2944 CCTGTCTCAACTACTTTGCCTTCTTTTGTAGGATATAGGGTGATGTTTGGTCTTGTTTTAT 3003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2128 ITCAMACGTGTTTTGATGAMAGAMGAGGAGIADGATGCIATIATAGTATTCTATAMCCTCG 2187
                                                                                           2044 TTCAAACCTGTTTTGAFCAAAGAAGAGGAGTAFGACCCTATTATAGATACTCG 2103
                                                                                                                                    2188 CTCTTCATGCAGAGTGGAAAGAAATATTTTGAASTATGCTTGCAGGGGGGGGCCTACC 2247
                                                                                                                                                                                                                                  2248 IIGICACCAATACCICACATTCCTGGAAGCCGTTACAAGTTGCTAGFCACCGACGTTAGGG 2307
                                                                                                                                                                                                                                                                                                                           2308 ATTCCLGGGGGGGGACACTAFATTTCACCCTGAGGTCCATATAAAATTTCAGAGGT 2367
                                                                                                                                                                                                                                                                                                                                                                                                                   2368 CTRACTAACTAACTAAAAAHGACTIOCAAGATCAAGAATGTTAGTTATGATTGAATTGA 2427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2428 TTOGGGAATTETGAGAAGTTOFAAAAATAAAFGAGATGGFATGTAAAYAAYAAYAOGGG 2487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2548 ATHGAAGGATCAGATCAAGCAGAAGGAAGHAAAGATGTGGGAGGAGGAGGAGGAAATTTGAG 2607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2728 GTACACCHCHGGAFFGAFFGFGFGFGAGAGAFGFGAGFFFFGCGAGGFFGFGFGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2788 TTATGGGGAGATTTAATATGTTGAGGTTGTTTTTGGGATATAAAAATGTGGAGATGTATAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2949 GITTGUGTGATGUTAAGGUATTGAAAIGTIAGTGAATGTTATTATTATATATATTGAAATGTTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2968 AATTOTTSTOTTSTATASTASTAATAASAATSASOOTTAASAATOOTTAATAAOAAA 3027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2884 AATTOCTGTGCTTTATGGATAGTAAGAALGGGCGTAGAGTGGGGAGTCGTGATAACCCAGG 2943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3088 FAATTTATATGTATATTTTTTAATTTTAACATGAACACCCTTAGAAAATGTGTCT 3147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3149 ATCTTCCAAATGCAATTTGAATTGACTTCAATTGAAAAATTAATCCAAAACTCTTCTTACTTGTTTGC 3207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                224 CTTCCSTSTTSTANGSTSTTSAAATSTTASTSAFSTTATSTSAFSTTATTATAAAASTTSAAAA
                                                                                                                                                                                                                                                                                                                                                 2524 CASAAAC; GGGAGAAATGACYTCTACTGAACAGGAATGCAAAAAGGAAAAATGATGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8028 COTSTOTOACTACITEGOCOTICITIISIAGCAIAIAAGGIGATGGTGGTCTGTTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2668 AGCATGGATACCTCAAACAAGAAGAGAGAGAGAGATCTCAGGAACCTTGAGGACACTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2584 AGCATGGATACTTCAAACAAGAAAAAATGAGGACTCTCAGGAOCTTGGTAGTACTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2824 ATCTIGIGIAAATCTIGGGAALIAAAAAGTIGITESTIGGGAAGTAAAAAGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8004 IAATITATATGTATATTTTTTAATITAAGATGAGAGAGATAGAAAAFGTGTGTATATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                         ें
                                                                                                                                                                                 qq
                                                                                                                                                                                                                                  ć
                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \
\
\
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \overline{c}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>~</u>;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
```

```
3244 AAAAGCTGGAAGCAAAGTATAACCATATGATACTATTCATACTACTGAAAGAGAGTTTCATA 3303
                                                            3124 AAAAATGGATATTATTAGAAATTAGAAAAAATTACTAATTTTACACATTAGATTTAAT
                                                                                                                                                                                                        3388 CCHCAGAATGTAAAAGAACTTAACTGATTTTTTTTCCAACTTATGTTTAAATGA
               3208 AAAAATGGATATTATTAGAAATTAGAAAAAATIACTAATTTTAGACATTAGATTTTTATT
                                                                                                              3268 TTACTATTGGAATCTGATA1ACTGTGTGTFGTTTTATAAATTTTGCTTTTAATTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: MODIFIED RELINGELASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE Patentin Pelease #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION: 7.1.2397
SEQUENCE DESCRIPTION: SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FELSE AFFLICATION DATA. APPLICATION NUMBER- 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 41,071 PEFERENCE/FOOTRET NUMBER: UI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
TELEPHONE, 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 44, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH. 3161 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE. «URKROWE» ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Hibler, David W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET. P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ 1D NO. 44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                 3448 GGATTATTGATAGT 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                         3364 GGATTATTGATAGT 3377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
US-09-469-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIS-09-469-555-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE
ð.
                                               qa
;
```

Length 3161;

рв 10,

Score 2827.4,

Query Match

	Matches	cal Similarity 99.6%; Prod. No. 0; 2844; Conservative 0; Mismatches II; Indels 0; Gaps	6
5 3	417	FOAARAACTATATAAAA ARCTGTTATACCATTAATGGTTCACTGGAACACCCAGGC 676 FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	
8 3 5 3	5773 577	GAGRICAGAACAGAADIGCACGGALAGCAAAACAACLAGAAAARGARACAAGAAATTATIG 736 FELLELLELLELLELLELLELLELLELLELLELLELLELL	
5 8	7.17	ardi ictetotaarbaecatgaatgtaatatagatgaggegaaaatgti tattegaaa 796   EEEE EEEE TEEE TEEEE TEEEE TEEEE TATTE TEEE TEEE AAD TEEE TEEE	
5 3	197	ATTITATACCITITATGAAITCICITGGACITGIAACATCIAAGGCITCCAGAGGITG 856 	
5 3	755	AAAALCHICHAAGGATACGAAAATHAICHAAAAATAAAGAICHAGAIGGAAGT 916 TELLEHTITELHITHITHITHITHITHITHITHITHITHITHITHITHITH	
57 Eb	917	PALTETEGRALGA IGA FRARAAG FOLTGAGAG TGATTGTAGAGAGTITTGAAGAGAGA 976 FELLELLELLELLELLELLELLELLELLELLELLELLELL	
5 2	77.9	GAN ANCANAAAAAGTAACTEGATGAAGGGTGAATGTAATTOCTCCACACACACTCCAG 1036 FILLELLELLELLELLELLELLERELLERELLELLELLELLE	
5 3	7.87	FIROGRETOTIALGRACACTALCCACAATTAALGALETETAAATTCAGCAAGTGATC 1096 FELFELLELLELLELLELLELLELLELLELLELLELLELL	
5 3	1097 797	AACTTICAGAAAATGIGATTICCTATTITAACAACTGCAGGCAATCGAAAAGAAAGTA 1156 FILLITITITITITITITITITITITITITITITITITIT	
\$ £	115.7	TACTGAAAAGAGGGGGGGGGGGGGGGGGGGGGGGGGGGG	
45	1217	GACAGROLIGICICGAAA LIGGALGAGGGALACAAACHTGGAGTTGGYTTGTATTAGC 1276 FELLICITELLICI	
5 3	1277	PAGLAATIDAALCCATOOTTAAATCAGAAGAAGAATTATCCATTCAAAATTTTAGCA 1336 ET TEELLELLELLELLELLELLELLELLELLELLELLELLEL	
5 3	1447	AACTICICAA GACAACATITITCATATGICITIATGGGGGGCGCCTCTICAGGGTGGTAA 1396 	
45	1397	DEDTAVALATADRAGAAGIACA PEGAGAATEHGA HETIGGAACAGALITGEETTIGG 1456 FEFFELLELLE ELEHELE HELLE HELLE HELLE HELLE HELLE HELLE HELLE HELLE HELLE IGEORAATATAGAAGAACA CEGAGAALE IGA HEGAARCAGAACAGATEGETTIGE 1156	
97 136	1457	CATIGNATIC I GAATGEGELTAAL FILAAAAAGCETT GA TITTTTACAAAGEGATCOAAAGTT 1516 	
5 E	1517	TTATCAAAGCAGAAGCTAACTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAAC 1576 	
75	15,77	AFCDARICATORAPIOCETOCATORICICTORALITCACCETTATETICATOFTATA 1636 FULLITITETETETETETETETETETETETETETETETETET	
6.0	16.47	ANTONARODAGGAGGAGGAGGAGGAGGGGGGGGGGGGGGGGGGGG	

```
1697 CTCTCCAGAATAATCACACTGCAGCAGATATGTATCTTTCTCCTGTAAGATCTCCAAAGA 1756
                                                                          1397 CTCTCCAGAATAATCACACTGCAGCAGATAIGTATCTTTCTCCTGTAAGATCTCCAAAGA 1456
                                                                                                                  1757 AAAAAGGTTCAACTACGCGTGTAAATTCTACLGCAAATGCAGAGACACAAGCAACTCAG 1816
                                                                                                                                      1997 IGAGAGACAGCATIIGGACCAAATTATGAIGIITCCATGTATGGCATATGCAAAGTGA 2056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2057 AGAATATAGACCITAAATTCAAAATCATTGTAACAGATACAAGATCTTCCTCATGCTG 2116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1757 AGAATATAGACCITAAATICAAAATGATIGIAACAGCATACAAGGATGITOCTGCTG 1816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2117 TTCAGGAGACATTCAAAFGTGTTTTGATFAAAGAAGAAGTATGALLGTALLATAGLAL 2175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2057 TTTCAGAAGGTCTGCCAACACCAAAAATGACTCTAAGATCAAGAATCTTAGTATGAA 2116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2477 GCGACCCTCTGCCCAAAAGAAGTCCTCAAACCAACCATCCTCCTAAACCAAAAAC 2536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2537 TACGCTITGATATIGAAGGATCAGATGAAGCAGAGAAGHAAAGHAAMAHAAMAALCH CAAGAGAT 2596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2237 TACGCTTTGATATTGAAGGATGAAGGAGGAGATGGAAGTTAAAACATCTTTTTAGGAGGT 2295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2297 CCAAATTTCAGCAGAAACTGGCAGAAATGACTICIACTCGAACACGAALGCAAAAGCAGA 2356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2657 AAATGAATGATAGCATGGATACCTCAAAGGAAGGAAGAAATGAGGALCTCAGGAACTTG 2716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2357 AAATGAATGATAGCATGGATACCTCAAACAAGGAAGAAAATGAGGATCTCAGGACTTG 2416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2717 GTGGACACTGTGTACACCTGTGGALTCALGGCCTCTCACAGAGGGACTGTATAACTTTC 2776
1337 ANTGAAGGAGGAGAAGGAGCAACTGALGAGITGAALCIGCITGITGITAAATCTTG 1336
                                                                                                                                                                                                                                                                                                                                                        1937 AATTAGAACATAICATCIGGACCCTTIICCAGCACACACCTGCAGAATGAGTAIGAGTCA 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2237 GGCCCCTACCTTGTCACCAATACCTCACATTCCTCGAAGCCCTTACAAGTTTCTTAGTT 2296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1937 GGCCCCTACCTTGTCACCAATACCTCACATTCCTCGAAGGCCTTACAAGTTTCCTAGTT 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2297 CACCCITIACCGALTICCIGGAGGAACAICIATAITICACCCCTGAAGAGICCALAIAAAA 2356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2597 CCANATITCAGCAGANACTGGCAGANATGACTICTACTCGANCAGGANTGCANANGGAN 2656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1817 CCTTCCAGACCCAGAAGCCATTGAAATCTACCTCTCTTTCACTGTTTTATAAAAAAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2177 TCTATAACTCGGTCTTCATGGAGAGAGAAAAAAAAATATTTTGGAGTATGATTGAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1997 CACCCTTACGGATTCCTGGAGGGAACATCTATATTTCACCCCTGAAGAGTCCATATAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2357 ITTCAGAAGGTCTGCCAACAACAAAAAAAAAAGACTCCAAAGATCAAGAATCTTAGTATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
···
                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                    ò
                                                                                                                                                     ä
                                                                                                                                                                                                                                    a
:
                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ζŅ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
```

5 3	2477	CCAGGILCIGITALGGCCACATTAALATCTTCAGCTCTTTTTGTGGATATAAAATGTGCCAAATTTTGTLLTTTTTTTTTT	2836 2536
g <u>e</u>	78.47		2896
ç ç	2897 2597		2956 2656
ਨੇ ਤੋਂ	2457		3016 2716
5. 2. 2.	4017 2717	GATAACCCAGCCTGTCTGACTACTTTTGCCTTTCTTTTTGTAGCATATAGCTGATGTTTTTTTT	3076 2776
5 E	4077 7774	CTESTITITATIAATTATATGTATATTITITATTAAATTAACATGAACACCTTAGAAAAT	3136 2836
\$ \$\frac{1}{2}\$	11.17	GIGLOCLALCTATCTTOCAAA1GCAAFTTGATTGACTGCCCATTGACCAAAATTATCCTG	3196 2896
5 3	1197	AACTCLICIGCAAAAATGGATAFFATTAGAAATTAGAAAAATTACTAATTTTAGACAF TITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	3256 2956
÷ ≘	1257	TAGATITTALITTACIALIGGAARCIGAIAIACIGIGGIGGCIGFTFIALAAAATITIGGT 	3316 3016
cy Lib	3317 3017	TITAATTAAABAAGCIGGAAGCAAAGTATAACCATATGATACTATCATACTACTGAAA 	3376 3076
5 ±	3377	GAGATITICATACCICAGAATGTAAAAGAACTTACTGATTATTTCTTCATCCAACTTATGGGGGGGG	3436` 3136
à à	3437	TTITIAAATGAGGATTATTGATAGT 3461 	

Search, completed: January 18, 2003, 04:28:20

```
Sequence 37, Appl Sequence 1, Appl Sequence 2, Appl Sequence 3, 44, Appl Sequence 19910, A Sequence 196, Appl Sequence 252, Appl Sequence 115, Appl Sequence 115, Appl Sequence 186, App
                                                                                                                                                                                                          Sequence 32, Appl
Sequence 34, Appl
Sequence 3, Appl
Sequence 36, Appl
Sequence 44, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 47, Appl Sequence 175, App Sequence 359, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3, Appli
Sequence 1, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4196, Ap
Sequence 8043, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 59, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 9859, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 51, Appl
Sequence 2546, Ap
Sequence 1242, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 55, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2, Ap
                                                                                                                                                       Sequence 48,
                                                                                                                                                                                 Sequence 42,
                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: 1HM PC compatible
OPERATING SYSIEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.40
                      0.85-09 469-522-28

0.08-09 469-522-28

0.08-09 469-522-40

0.08-09 469-522-40

0.08-09 469-522-40

0.08-09 469-522-40

0.08-09 469-522-40

0.08-09 469-522-40

0.08-09 469-522-46

0.08-09 469-522-46

0.08-09 469-522-46

0.08-09 469-522-46

0.08-09 469-522-46

0.08-09 469-522-46

0.08-09 469-522-46

0.08-09 469-522-46

0.08-09 469-522-46

0.08-09 464-761-1199-10

0.08-09 464-461-1153

0.08-09 464-466-1153

0.08-09 464-466-1153

0.08-09 464-466-1153

0.08-09 464-466-1153

0.08-09 464-466-1153

0.08-09 464-466-1153

0.08-09 464-466-1153

0.08-09 464-466-1153

0.08-09 464-466-1153

0.08-09 464-466-1153

0.08-09 464-466-1153

0.08-09 464-464-365

0.08-09 464-464-365

0.08-09 464-464-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-365

0.08-09 464-864-364

0.08-09 464-864-364

0.08-09 464-864-364

0.08-09 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-851-682A-2

US-04-92-7 A5-145

US-04-92-7 A7-7

US-05-960-25-1 T5-1

US-10-044-090-359

US-09-801-359-655

US-09-801-358-655

US-09-815-242-8043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORPESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
APPLICATION NUMBER, US/05/469,522
FILING DATE: 22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         : Sequence 40, Application 08,09469522; Patent No. 9820020151461A1; ChnERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     011001666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01101101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 : 400i
3773
                                                                                                                                              3383
                                                                                                                                                                                                                                                                                                                                                           3960
3747
                                                                                                                                                                                                                                                                                                                                                                                                                                                    3209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10096
3624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10190
10211
10211
6773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4302
8493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: TX
                                                                                                                    92.1
91.9
91.6
91.1
91.1
90.5
86.7
                                                                                                                                                                                                                                                                                                                                                                                     3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09 469 522-40
                                                                                                                                                                                                                                                                                                                                  3912
796.5
516.5
516.5
10.2
177.5
1162.5
1167.5
1167.5
1167.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          146.5
145.5
145.5
143.5
141.5
141.5
138.5
137.5
                                                        4349
                                                                                                                    4263
4256
4240
                                                                                                                                                                                                          4219
4217
4192
4017
4595 5
                               4417.5
                                                                                     œ
                                                                                                                                              --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Particle Control of the Control of Control o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 40, Appl
Sequence 1, Appli
                                                                                                                                                                                                                                      (without alignments)
6107.852 Million cell updates,/ser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                       January 18, 2003, 04-31-54; Search time 65,4803 Seconds
                                                                                                                                                                                                                                                                                                                                                                                        I MPPKTPRKIAATAAAAAAEP.....TRMQKQKMNDSMDTSNKEEK 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       is the number of results predicted by chance to have a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /cqn2_6/ptodata/1/pubpna/USO9_pubCOMB.seq:*
/cqn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
/cqn2_6/ptodata/1/pubpna/US10_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cgnz_6/pt.odata/1/pubpna/PCTUS_PUBCOMB.seq:*/cgnz_6/pt.odata/1/pubpna/USOB_NRW_PUB_seq:*/cgnz_6/pt.odata/1/pubpna/USOB_PURCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zeanz, byptodatazizpohpnazuskú_NEW_PUR segi*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cqu2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /conz_bzprodata/izpubpodatis07_puncomm seq.*
/conz_bzprodata/izpubpodazer_new_pun seq.*
/conz_bzprodata/izpubpodzis06_new_pun seq.*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /oqn2_6/ptodata/1/pubpna/dSn6_puHroMH_soq:*
/cqua_6/ptodata/1/pubpna/0307_nsw_odH.soq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cqn2_6/ptodata/l/pubpna/US09_NEW_PUB.scq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              787736
                                                        Copyright (c) 1993 - 2003 - Compagen Ltd.
                                                                                                                                              nucleic search, using frame_plus_p2n mode!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10 08-00-469-522-40
10 08 09 469 522 1
9 08-09-954-531-143
10 08-09 860 211 7
                            Gengore version 5.1.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     191868 segs, 222414144 regidues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Published_Applications_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLOSUM62
Xqapop 10.0 / Xqapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pdapop 6.0 , Pdapoxt
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Yqapop 10.0 , Yqapevt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Match Length DB 1D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                               US 09-026-459A-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Command line parameters:
MoDEL-trame+.p2n.model -DEV-xlh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3461
3555
4839
2995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.4
99.4
99.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Prid. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4631
4605.5
4605.5
4595.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                     Perfect Score;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                 M protein .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bat abase :
                                                                                                                                                                                                                                                                                                                                                                                        Sodnenos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kr.S.11 †
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ž
```

CLASSIFICATION: <Unknown>

Sequence 143, App Sequence 7, Appli

```
81 GlumetSerPheThrPheThrGluLeuGlnLysAsnileGluIleSerValHisLysPhe 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [01] PheAsnieuLeuLysOlu!leAspThrSerThrLysValAspAsnAlaMetSerArgLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141 IleTyrLeuThrGlnProSerSerSerIleSerThrGluIleAsnSerAlaLeuValLeu 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161 LysvatSerTrpHethThPhetheuLeuAlaLysGlyGluValLeuGlnMetGluAspAsp 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 LegValileSerPheCluLedMetLeuCysValLeuAspTyrPhelleLysLeuSerPro 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2) ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41 AspleuProLeuValArqLeuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 CysGlntysLeutysLleProAspHisValArgGluArgAlaTrpLeuValAspLeuAsp 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ] MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      487 AAAGITICITGGATCACATTTTTATTAGCCTAAAGGGGAAGTATTACAAATGGAAGATGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US 09-026-459A-41 (1-897) x US-09-469-522-40 (1-3461)
                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
                                                                                                                                                                                                                                                                                                                      LOCATION: 7..2697
SPOURNE DESPETEITON SEG ID NO: 40+
                APPLICATION NUMBER: 09,026,459
                                                                                 REGISTRATION NUMBER 41 071
REFERENCYET NUMBER 1TD
IELECAMMUNICATION INFORMATION 1 TELECHONE: 512/418-3000
IELECHAX: 512/418-3000
                                                                                                                                                                                                              LENGIH: 3461 base pairs
                                              ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                   FILLING DATE: <Unknown>
                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 40:
SEQUENCE CHAPACTEPISTICS:
                                                                                                                                                                                                                                   TYPE: nucleic acid
SIKANDEDNESS: single
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                           4631.00
                                                                                                                                                                                                                                                                                                                                                                                                                                            100.00%
                                                                                                                                                                                                                                                                  ToPolOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rost Local Similarity.
Quoty Match.
                                                                                                                                                                                                                                                                                                    NAME / KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                        US 09-469-522-40
                                                                                                                                                                                                                                                                                     FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ė
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ت
آ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
```

```
1447 TTGTCTTTCCCATGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTACAAAGG 1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      967 RAAAMARARAAAAMAAMAAMAAAAAAATAAMMITGAIGAAGAGGIGAAIGIAAIICCICCA 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1507 ATCGAAAGTITTATCAAAGCAGAAGCAACTIGACAAGAGAAATGATAAAAACATITAGAA 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221 ThrProArgArgClyClnAsnArgSerAlaArglleAlalysClnLeuGluAsnAsplhr 240
                                                                                                                                                                                                                                                                                                                                                       361 AlaSerAspGinProSerGluAsnLeulieSerIyrPheAsnAsnCysThrValAsnPro 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            381 LysGlussoriloLeuLysArgValLysAsFileClyTyrileFhoLysGluLysPheAla 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 LeuTyrTyrArgValMetGluSerMetLeuLysSerGluGluGluGluArgLeuSerIleGln 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    441 AsnPheSerLysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeu 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          461 GluValValMetAlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAsp 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541 LeulleLysGlnSerLysAspArgGluGlyProThrAspHisLeuGluSerAlaCysPro 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       561 LeuAsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMet.TyrLeuSerProValArq 580
                                                                                          727 AGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTT
                                                                                                                                                                                                                                           787 IAITICAAAAATITIAIACCIIITAIGAATICICIIGGACIIGIAACAICIAAAIGGACTI
                                                                                                                                                                                                        261 TyrPhoLysAsnPhoIleProFheMetAsnSerLeuGlyLeuValThrSerAsnSlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                  421 GluThr@lbArgThrProArgLysSerAsnLeuAspGluGluGluValAsnValIleProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481 LeuSerPheProTrpIleLeuAsnValLeuAsnLeuLysAlaPheAspPheTyrLysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                521 ArgCysGluHisArglleMetGluSerLeuAlaTipLeuSerAspSerPtoLeuPheAsp
                                                                                                                               241 ArgilelledluVulLetCysLysGluHisGluCysAsrileAspriluValLysAssVal
                                                                                                                                                                                                                                                                                281 ProClaValClaAsnLeuSerLysArgTyrCluClalleTyrLeuLysAsnLysAspLeu
                                                                                                                                                     ج
:
                                                                                                                                                                                                                                                                                                                    ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                           E;
                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                  â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

201 ProMetLeuLeuLypGluFroTyrLygThrAlaValIleFroIleAonGlySerFroArg 220

```
T687 CTTAATCTTCCTCTCCAGAJAATGACACGGAGAGATATGTATGTTCTCTCTGTAAGA 1746
                                                                                                                                                                                                                                                                                                                                           1807 GCAACCTCAGCCTTCCAGACCAAAACCATTGAAAFCTACCTCTCTCTCACTGTTTAT 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Z107 OCTORIO DELLE RESEASACA DE SARA SESTITISA CORASARASANASSASTATSATOT 2156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2527 CTGAAAAAACTAAGCTTIGAAATIGAAGGAICAGATGAAGCAGATGGAAGTAAACATCTC 2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1242 TOTOCAAAAAAAAAGITOAAGIAGAGGGGGTATAAATTOTAGTGCAAATGGAGAGACACAA 1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1987 IATGAACTCATGAGAGAGAGAATTIGGACQAAATTATGATGTGTGCATGTATGGCATA 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                  621 EysEysValTyrArgLeuAlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSer 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.21. TTO HEVATEROLY FASOS OF VALUE OF GINAL GROUP, SELL AS DE LONG FOR THE TAGE OF THE PARTY PROPERTY OF THE PROPERTY OF THE PARTY OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    821 ValtysAsnSerAspArqValLenLysArqSerAlaGludlySerAsnProProLysPro 840
                                                                                 581 SerProLysLysLysGlySerThrThrArdValAsnSerThrAlaAsnAlaGluThrGln 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     641 GluffisProGluLeuGluffisHeffeTrpIhrLeuPheGlnHisThrLeuGlnAsnGlu 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661 FyrGluLeuMetArqAspArqHisLeuAspGlufleMetMetCysSerMetTyrGlyffe 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              701 ProffisAlaValGindlaThrPhotysArqValLeufletysGluGluGluTyrAspSer 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        741 AlaserThrArgProProThrLeuSerProIleProHisIleProArgSerProTyrLys 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            801 [Fe/Val Sertitor][yr] (4SerPlash]yThrSert][u] ysPhoGlu[ysI] oAsnGloMet | 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841 LoutystystenArgebeAspileGluGlySerAspGluAlaAspGlySertysHisLeu 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    861 ProdlyGluSerLysPheGluGlnLysLeuAlaGluMetThrSerThrArqThrArgMet, 880
                                                                                                                                                                                                                                                     601 AlathrSerAlaPheGln1hrGln1y8ProteutysSerThrSerLeuSerLeuPheTyr
                                                                                                                                                                                                                                                                                                       2647 CANANAGANANAATGATGATAGGATAGGATACCTCANAGGAAGGAAGAAA 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 881 CluLysGluLysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : Sequence 1, Application BS/89469522
: Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hu, Shi Xuo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US U9 469 522 1
                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ĩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
```

```
127 GACCTGCCTCTCGTCAGGCTTGAGTTTGAAGAAACAAGAAGAAGATTTTA/TGATTTA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41 AsplieuProteuValArgleuGluPheGluGluFhrGluGluProAspPhethrAlafeu ful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21 ProAlaProProProProProProProGluGluAspProGluGluAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MetProProLysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TOMOR SUFFRESSOR
                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 CysGlnLysLeuLyslleProAspHisValArqGluArqAlaTrpLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-026-459A-41 (1-897) x US-09-469-522-1 (1-4555)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RECISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                 ADDRESSEE: Arnoid, White & Durkee
                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lengt h:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    indels:
                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSIEM: PC:DOSZMS:DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 7.2790
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 09/026,459
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22-Dec 1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 512/418 3000
                                                        PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 3555 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                               · Unknown ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALTORNEY/AGENT INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Hiblor, David W.
                                                                                                                                  SIREEL: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SECTIONO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
                                                                           NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                CORRESPONDENCE ADDRESS:
                zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96,668
96,668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.458
                                                                                                                                                                                               COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                                                                                                                         CITY: Bouston
                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILLING DALF:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRIEFER
                                                                                                                                                                            STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

89 366 109 426 129 486		249 846 269 906 966 1026	329 . 1086 349 1146 369 1206	1266 409 1326 429 1386
TO GLATETTIAT TO GAGGACTIC GAMETSE PRETTY PRETTY GAGGACTIC GAGGACTIC GATE GATE GAGGACTIC GAGACTIC GAGGACTIC GAGACTIC GAGGACTIC GAGACTIC GAGGACTIC GAGACTIC GAGAC	HILLIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI	2.90 Alaargilealaiyystinieudiuasnasprhaargiloilediuvalieudystyystin illililililililililililililililililil	issthreedbilding and a sector of the sector	### IT
	* - 4 - 4 - 4 - 4 - 7 - 7 - 7 - 7 - 7 - 7			
5 = 5 = 5 = 5	8 3 3 5 5 5 5 5 5	청 요 강 윤 창 윤 창 윤		£ 5 £ 5 £ 5

```
1927 CCATIGAAALCTACCTCTTICACTGIIITAAAAAAGGTATCGGCIAGCTATCTC 1986
                                                                          1447 ATTITICATATGICITIATIGGCGTGCGGCTTGAGGTIGTAATGGCCACATATAGGAG
                                                                                                                               2347 CCAATACCTCACATTCCTCGAAGCCTTACAAGTTLCCTAGTCACCTTACGGATTCCT 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2407 GGAGGGAACATCTATATTTCACCCTGAAGAGTGCATATAAAATTTCAGAAGGTGTGCCA 2455
                                            450 ilePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThrTyrSerArg 469
                                                                                                                                                                                                                                                                                                  530 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGlnSerLysAspArqGlu 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       590 ArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaFheGlnThrGlnLys 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  610 ProLeuLysSerThrSerLeuSerLeuBetyrLystysValTyrArqLeuAlaTyrLeu 629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 630 ArglicuAsmithrlouCysCluArglicuLcuSerGluHisProGluLeuGluHisIlelle 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          670 AspGln1leMetMetCysSerMetTyrSly1leCysLysValLysAsm1leAspLeuLys 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            770 GlyclyAaniloTyrriloSerProtectlysSerProTyrIysIleSerGluGlyLeuPro 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               650 TrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArqHisLeu 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                750 ProlleProHislleProArgSerProTyrLysPheProSerSerProLeuArgllePro 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           790 ThrProThrLysMetThrProArgSerArglleLeuValSerfleGlyGluSerPheGly 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        690 PhetysilelleValThrAlaTyrtysAspLeuProHisAlaValGinGluThrPhetys 709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     710 ArqValLeuIleLysGluGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe 729
                                                                                                        470 SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrplleLeuAsuVal
                                                                                                                                                                                                                                    510 AsmieuThrArgGluMetiloLysHisleuGluArgCysGluHisArglleMetGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  730 Met.GlnArqLeuLysThrAsnIleLeuGlnTyrAlaSerThrArqProProThrLeuSer
                                                                                                                            g
                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                  G
D
                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                           Σŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                       급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <del>2</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2
                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                òχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ::
O
```

Oy         61 CynGlnLyslewLyslleProAspHisValAraGluAraGluAraGluTrpLeu         76           1114111111111111111111111111111111111	378 GITTCAICIGGAAGIALIGGGAGGILAIALE AAAAGAAAAAAAAA 1616GGGA 77	2y 90 GIRLYSASDITEGLATIESEKTVALHISLYSPEPERANDROLLYSGLATHANDITTI 109 	CT         110 Settlingsvalaspasialamets; (Argiculumings) yalyidapavalikudikalia (29           111 HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	MTTGACAACTAAGGAGT LISETTIPITETTETTTTTTTTTTTTTTTTTTTTTTTTTTT	11   1   1   1   1   1   1   1   1   1	210 The Alabard III deposited by Secretary and the Alabard Secretary Secretary and the Alabard Secretary Secretary and the Alabard Secretary Secreta	11 HTH HTH HTH HTH HTH HTH HTH HTH HTH H	Oy 270 AsnSerLeadlyLeuValThrSerAssilyLeafradlaValdLaAshJavadag 289 [HILLIHITHITHITHITHITHITHITHITHITHITHITHITHIT	310 LysThrLeuGhrihr Aspser HeaspSer PheGluthr Guar q'fhri y ar al ysser i Littill III i i i i i i i i i i i i i i i i	09 430 Abneta/Spindiu/Alashvaliide/Deproproblisthr/Provalard/Invalmer/Asn 449   111111111111111111111111111111111	OY 370 ILESCTIVEPHOASHASHOYSTHEVALASHURCHTHELLITTITTITTITTITTITTITTITTITTITTITTITTIT
DE 2467 ACACAACAAAAAGACTCCAAGATCATAAGAATCTTAGTCAATGGTGAATCATTCGGG 2526  ST 810 HistorgluigsphechnigsleasrolmametvalCysassGcrasparqValiculys 829  DE 2527 ACTP GAGAAGI PCAGAAAI AAALCAGA IGI ACTAACAGCGCG GGCCCG ICCCAAA 2586	84 26 86	145 - 264 / GRAFTATATATATATATATATATATATATATATATATATAT	- 0 - 8 - 8	in in it is a second	TITLE OF INVENTION: Gene Sets FILE REFERENCE: 689.200-77 CURRENT APPLICATION NUMBER: 08/09/954,531 CURRENT FILING DATE: 2002-05.02 PRIOR FILING NUMBER: US/07/33,133 PRIOR FILING NUMBER: US/07/233,133		PRIOR PRIOR NUMBER SOFTWA SECTO LENGI	i obcanism Homo appiens fis og 954 541 143 Alignment Scores: 0 Longth: 4839 Score: 4605,50 Matches: 897 Forent Similarity: 95,65% conservative: 0	09-954-5	UV I METPROPROLYSTREPTOANDINSTERFALAALDENTAAALAALAALAALAALAALAALAALAALAALAALAALAA	41 Aspteuproteuvalardieudluphedludluthrdludlubroaspphethralateu HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

•			
1457 429 1517 449 1577 469	114 48 114 114 114 114 114 114 114 114 1	569 1937 1997 609 2057 2117 2117	669 689 2297 709 2357 729 2417 749 769
ATACATCTTTAAAGAGAATTGCTAAAGCTGTGGGGGAAGAGGTTGTTGTGGGGAAGAGAGAG	Styrbraspleuserpheprofrpileleuasnva staacdattigitiiiiiiiiiiiiiii FyttysValileeluserPheiletysAlagludi FyttysValileeluserPheiletysAlagludi Filliiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	THE CONTRACTOR CONTROLL OF THE	Troughed beta such to such as a such such and beta such and beta such as a s
	SerThr SerChashiculi i i i i i i i i i i i i i i i i i i	Hyperatrages becomes a serious	inpthricophedin 161411111111 1614111111111111111111111
106 1398 129 410 129 440 120 1518 120 1578	. च क क क क क क क . च क क क क क . च क क क	187 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CY 150 Db 2178 CY 670 Db 2248 CY 710 Db 2358 OY 730 Db 2358

```
770 GIVOLYASELLOTYT.LoSerProlouigsSerProlytiysTLOSerGlediyteurro 789
HTHIIIIIIIIIIIIIIIIIII
2538 GGAGGAACATCYATATYTCACCCCTGAAGAGTCCAYAYAAAATTYTGAGAAGGTCIGCCA 2597
                                                                                                                                                                                                                                                                                                2478 CCAAIACCICACAITCCICGAAA COTTACAAGITICCIAGITICACCCIIACGGAIICCI 2537
                                                                                                                                                  2838 CTGGCNGAAALGACTECTACTGGAACACAGGAAAAGAAAAGAAAGAAAGAALGALGATG 2897
                                                                                                                                                                                                               816 ThrserClutysPheGIntysTleAsnSInMetValCysAsnSetAspAtgValueurys 829
                                                                                                                              790 ThrProThrLysMetThrProArgSerArgIleLeuValSerIleGlyGluSerPheGly 809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          870 LeualaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Maneval, Daniel C.
TITLE OF INVENTION: Recombinant Adenoviral Vector and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: ULB940-000920US TELECOMMUNICATION INFORMATION: TELETHONE: (415) 576-0200
TELETHONE: (415) 776-0300
INFORMATION FOR SEQ ID NO: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 08,328,673 FILING DATE: 15-PEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 15-FEB-2000
APPLICATION NUMBER: US 08/142,669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 08/233,669
FILING DATE: 26-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US,09,7850,211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: 18M PC compatible
OPERATING SYSTEM, FC-D55/MS-D0S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Smith, Timothy S.
PEGISTRATION NUMBER: 35,367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DAIE: 18-May-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2898 GATACCTCAAACAAGGAAGAAA 2921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gredoly, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 25:00T-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               890 AspThrSerAsnLysGluGluLys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         // Sequence 7, Application #5/09860211
// Patent Mo. 9520620137212A1
// GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET. Two Embarcad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SHOURNCES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APFLICANT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-860-211-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 4
                                                                                                                                                                                                                                                                                                                                                                               .Kō. ;
                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                          50
                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
```

```
210 1brataValIIIcProHeAsnGlySerProArq1brProArqArqGlyGlnAsnArqSer 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90 - Gtaf ysAsa Lest at Lesser Val Hist.ysPhePheAsnteat.ysGtaf JeAspfhr 109 - Gfff | Hittiff | H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       190 CysValLeuAspiyrPhelleLysLeuSerProProMetLeuLeuLysGluProTyrLys 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              259 GACCTGCCTCTCGTCAGGCTTGAGTTTGAAGAAAGAAGAAGAAGCTGATTTTACTGCATTA 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             79 GITICAICIGIGGALGGACIALIGGGAGGITALICAAAAGAAAAAGAAAACIGIGGGGA 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 99 ATCTGFATCTTTATEGAMGANGANGAMATGAAATGAAATGTCGTTGACTTTACTGAGCTA 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      499 PAGAAAAAGATAGAAATGAGTGTGGATAAATTGTTTAAGTTYAGTAAAAGAAATTGAYAGC 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                110 SetThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspValLeuPheAla 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                130 temphesertystendinArqthrCysGtuLeutleTyrLeuThrdInProSerSer 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   619 CTCTCAGOAAATTGGAAAAGACATGTGAACTTATATATTGACACACCAGCAGTTCG 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      150 HeserthrelmfleAsnSerAlaLeuValLeuLysValSerTrpfleflerPheLeuLeu 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 799 TGTGTCGTTGACIAITITATIAAACTGTGAGGTGGGATGTTGGTGAAAGAAGAACATATAAA 858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Val AsplæuAspCluMet SerPherhrPherhrGluLeu 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 CyschntystleutystleProAspHisValArgGluArgAlaTrpLeur-----
                                                                                                                                                                                                                                                                                                                    OTHER INDORMATION: /product "RB"
/note- "retined.astema temor suppressor"
SEQUENCE DESCRIPTION: SEQ ID No. 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US 09 026 459A 41 (1-897) x US-09-860-211-7 (1-2995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels:
LENGIH: 2335 base pairs
                                       (YPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                     139..2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4595.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96,55%
96,55%
                                                                                                                     TerpoloGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            49.248
                                                                                                                                                        MOLECULE TYPE: CONA
                                                                                                                                                                                                                                          NAMEZKEY: COS
                                                                                                                                                                                                                                                                                     LOCALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Allqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  860 211 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ouery Mateh:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
```

```
1759 AACTTGACAAGAAATGALAAAACATTTAGAAGGATGTGAAGATGAATGAATGT 1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1159 AAAACTCTTCAGAGTGATTCTATAGACAGTTTTGAAA'ACAGAGAA'AA'AA'AAAAAAAGT 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                          219 AACCTTGATGAAGAGGTGAATGTTGTTGTACACACTGGAGTTAGGACTGTTATGAAG 1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1459 ATTGGATCACACATACAAACTTGGAGTTCGCTTGTATTACCGAGTAATGGAATCCATG 1518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1519 CTTAAATCAGAAGAAGGATTATCCATTCAAAATTTTAGCAAAATTTCTGAATGACAAGC 1578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1699 CITAATITAAAAGCCITIGAITITITACAAAGTGAAAGITITITATCAAAGGG 1758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          879 GGACCAACTGATCACCTTGAATCTGCTTGTCCTCTTAATCTTCCTCTCTCAGAATAATCAG 1938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      430 LeutysSerGluGluGluArgLeuSerfleGlnAsnPheSerLysLeutsnAspAsn 449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  490 Jeudsniteal-ysalazheaspPhetyriysValifiediuserphetteriysAlachudiy 509 Hillititititititititititititititititi
                                                                                                                                                                                          270 AsnSerLeuGlyLeuValThrSerAsnGlyLeuFroGlaValGluAsnLeuSerLyaArg 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                410 IleGlySerGlnArqTyrLysLeuGlyValArqLeuTyrTyrArqValMetGluSerMet. 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  450 IlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThrTyrSerArg 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              470 serihtserdinAsnLeuAspserdiyInrAspLeuSerPheProTrplleLeuAsnVal 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                570 ThrAlaAlaAspMetTyrLeuSerProValArqSerProLysLysLysGlySerThrThr 589
                                    859 ACAGCIGTIATACCCALTAALGGTICACCICGAAAACACCAGGGAGGTICAGAAAAGAGI 918
                                                                            919 GCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGTGTAAAGAA 97B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                350 ThrileGinGinLeuMetMetIleLeuAsnSerAlaSerAspGinProSerGluAsnLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          530 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGluSerLysAspArqGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    550 GlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGlnAsnAsnHis
                                                                                                                                                                                                                                                                    290 TyrdladlallefyrLeatysAsnLysAspteuAspAlaArqLeuPheteuAspHisAsp
                                                                                                                                                                                                                                                                                                                                                                                                                        330 AsnLeuAspGluGluValAsnValIleProProHisThrProValArqThrValMetAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                510 AsnLeuThrArgGluMetIleLysHisLeuGluArgCysGluHisArgIleMetGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            370 HeSerTyrPheAsnAsnCysThrValAsnProLysGluSerTHeLeuLysArqValLys
                                                                                                                                                                                                                                                                                                                                              310 LysThrLeuGinThrAspSerileAspSerPheGluThrGlnArgThrProArgLysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    λō
                                      õ
                                                                          qq
                                                                                                                                                    qq
                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                      å
                                                                                                                                                                                                                                                                                                      Dp
                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \circ_{Y}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
```

```
2.459 - OSTGITITGATCAAAAGAGAGAGTATGATTGIATATATAGATTCTATAAAACTCGGGTCTTC 24.18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2739 AGANAGA GANGA AGANGA AGANGA TALIH HILIH HIL
                                                                                                                                                                  2119 GGGGAAATACACTTTGTGAACGCGTTCTGTGTGTGAGCAGCAGAATTAGAACATATGATG 2178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2239 GACCAAA FATGATGTGT FORTSTATGGATATGGAAGGGAAGAATATAGGTTAAAA 2298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2779 - DGA FOAGA FOAGA FOGAAGTAAA CATOOOAGAGAGTOCAAA PITTOAGOAGAA - 2838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28/49 / PIGGGADAAAFGACTITOTACHINGAAGAAAHGAAAAGGAGAAAAHGAAHGGATAGGATG 2898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        630 ArgLenAsnThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGluHisIleIle 649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.30 ABP 2017 (SWOOTMO) OURSON HAS THE STANDARD BY WAND TO ABP 1801 WE CROSS STANDARD BY WAS TRACTED BY THE STANDARD BY WAS TRACTED BY 
550 ArqValAsnSetthralaAsnAtaGluthrGlnAlaThrSetAlaPheGluthrGlutys 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           85s (rplhrfeuPheGInHisThrLeuGlnAsnGluTyrGluLeuMetArgAspArgHisLeu 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7.0 ArgVallabileLysGluGluGluTyrAspSerilelleValPheTyrAsnSerValPhe 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    749 MetGinArgleuLysThrAsnileLeuGlnTyrAlaSerThrArgProProThrLeuSer 749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               790 ThrProThTLysMetThrProArgSerArgIleLeuValSerIleGlyGluSerPheGly 809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           810 [hrSerGiuLysPheGinLysTleAsnglnMetValrysAsnSerAspArqValLeuLys 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840 ArgSerAlaGluGlySerAshProProLySProLeuLySLeuArgPheAsp11eGlu 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   850 dlySerAspCluAlaAspClySerLySHiSLeuProGlyCluSerLySPheGlnGlnLyS 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       830\ {\tt LeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspAserMet}\ 889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2899 SATACCTCAAACAAGGAAGAAAA 2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           890 ASPThi Ser Aspt.ysGluGluLys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Hong-Ji
Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0825020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent No. USZNO2015148
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18 09-469 522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 50,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
```

Benedict, William F.

```
247 GITTCATCTGTGAATGGAGGTATTGGGAGGTTATATTCAAAAGAAAAAGGAACTGTGGGGA ×06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41 AsplicuProfeuValArgicuGluPheGluGluThrGluGluFroAspPhelhrAlaLen 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 Met.ProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21 ProAlaProProProProProProPicGluGluAspPicGluGluAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 CysGlnLysLeuLysIleProAspHisValArqGluArqAlaTrpLeu-----
                                                                                                                                                                                                                                                                                   Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       895
1
1
31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-026-459A-41 (1-897) x US-09-469-522-50 (1-3554)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches:
                                                                                         ADDRESSIE, Arreld, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                   " S " " G " 16 G " C 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 41,071
PEPEPENCE, POCKET NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels:
                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: 7.2790
SEQUENCE DESCRIPTION: SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 39,7026,459
                                                                                                                                                                                                                                                                                                                                       FILING DATE: 22-Dec-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                     COMPUTER FRADABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: 512/418-3000 THLEFAX: 512/474-7577
                                   PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 3554 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 50: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                     NUMBER OF SEQUENCES: 51
                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4595.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   452 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96.448
                                                                                                                                                                     COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                               CITY: Houston
                                                                                                                                               STATE: TX
                                                                                                                                                                                                                                                                                     SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Porcent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ó
```

```
2467 ACACCAACAAAAATGACTCCAAGATCAAGAATCTTAGTAGTATCAATTGGTGAAFCATTGGG 2526
                                                                                                                1747 GGACCAACTGATCACTTGAATCTGCTTGTCCTCTTAATCTTCCTCTCTCCAAATAATCAC 1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2167 PTGAAAAPGAFFGFAAGAGGAFGFFFFFFFFFFFGFFGFFGFFGAGGGGFFGAAA 2226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2347 CCAATACCTCACATTCCTCGAAGCCCTTACAAGTTTCCTAGTTCACCTTACGATTCCT 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2407 GGAGGGAAÇATÇTATATTTÇAÇÇÇÇTGAAGAGTÇÇATATAAAALTTÇAĞAAĞQTÇTĞÇÇA 2466
1387 CTTAAATCAGAAGAAGGATTATCCATTGAAAATTTTAGCAAACTTGGAATGAGGAG
                                                                                                                                                               490 LeuAsnLeuLysAlaPheAspPheTyrLysVallTedTuSerPheTLeLysAladTudTy 509
                                                                                                                                                                                                                                                                                                                                                              550 GlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuFroLeuGlnAsnAsnHis 569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               650 TrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMelArqAspArqHisLeu 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  610 ProteutysSerThrSert.euSert.euPhcTyrtystysVallyrArg.cuAlaTyrt.eu 629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                630 ArgleuAsnThrLeuCysGluArgleuLeuSerGluHisPPoGluLeuGluHisHelle 649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 690 PhetysilelleValThrAlaTyrtysAsptzoProHisAlaValClnClathrPhetys 709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               710 ArqValLeuIleLysGluGluGluGluTyrAspSerIleIleValPheTyrAunserValFhe 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 730 MetGinArgLeulysThrAsnileLeuGinTyrAlaSerThrArgProProThileuSer 749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   750 ProlleproffislleproargserProTytLysPheProSerSerProLeualgllePro 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     790 ThrProThrLysMetThrProArgSerArglleLeuvalSerIleGlyGlusev PhoGly 809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   510 AsnieuThrArgCluMetileLysHisLeuGluArgCysGluHisArglieMetGluSer
                                                                                                                                                                                                                                                                                              530 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGluSeuLysAspArqGlu
                                                                                                                                                                                                                                                                                                                                                                                                                            570 ThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLysLysGlySerThrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                590 ArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGluThrGlnLys
                                                                                               SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrpflebeuAsnVal
                                                                                                                                                                                                                                                                                                                                                                               ф
С
                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                               ŏ
                                                            3
                                                                                                                              C
                                                                                                                                                               ð
                                                                                                                                                                                             qq
                                                                                                                                                                                                                              \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                δà
                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \ddot{c}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ^{\circ}_{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
```

```
2447 GGATGAGATGAAGPAGAAGTAAAGTTGAAGATGTGAGAGAGTGGAAATTGAGGAAAA 2706
                                                                                                                                                                                                                                                                                                                         450 31ySarAspt3uAlaAspt3ySerLysBisLeuProd3yGluSorLysPhot3at3u1nJys 869
                                                                                             830 ArgSerAlaCluGlySerAsnProProLySProLeuLySLeuArgPheAsp11eGlu 849
                                                                                                                                                                                                                                                                                870 LeualadlumetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 889
810 ThrserGlubysPhysTintysTheAsnGlumetVa1CysAsnScrAspArgVa11eu1ys | 829
                                                                                                                                                                                                                                                                                                        TILLE OF INVENTION: MODIFIED RETINORIASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARF: Patentin Pelease #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS SI
ADDRESSEE: Atnobld, White a Durker
SIREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "URRENT APPLICATION DATA:
APPLICATION NUMBER: US/39/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: 18M PC COMPATIBLE OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE DESCRIPTION: SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 04,026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER 41.071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Benedict, William F
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                    2.47 SALACCICAAACAAGGAAGAAA 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: CUnknews>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 28, Application US/09169522
Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                             890 AspthrSerAsnLysGluGluLys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGIH: 3455 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AIT PNEY, AGENT INFOPMATION - NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACHERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IYPE: nucleic acid
SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCALION: 7..2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         * MPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ToPoloGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: HSA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAMEZKEY CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US 09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US 09 469 522 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PESULT 6
                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                 <u>.</u>
                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                             1.
Tr
```

3455

Aliqument Scores:

Prod. Ro.:

```
244 GluValLeuCystysGluHisGluCysAsnileAspGluValLysAsnValTyrTheLyo 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            790 AATITIAIAGCITITAIGAATICTCTIGGACTIGIAAGAICIAAIGGACTICCAGAGGI 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            284 CluAsrLeuSerLycArgTyrGluGluIleTyrLeuLysAsnLysAspLeuAspAlaArg 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     304 LeuPheLeuAspHisAspLysThrLeuGlnThrAspSerIleAspSerPheGluThrGlu 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        324. ArgThrProArglysSerAsnieuAspGluGluValAsnVailleProProHisThrPro. 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             • 144 ThrGlnProScrScrScrStriteSerThrGluIIeAsnScrAlaLeuValiculysValScr 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        164 TrpI]eThrPheLeuLeuLeuAlaLysSlyGluValLeuGlnMetGluAspAspLeuVallle 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      184 SerPheGlaLeuMetLeuCysValLeuAspTyrPheIleLysLeuSerProProMetLea 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              730 GAAGTTCTCTGTAAAGAACATGAATGTAATATAGAGGGGGAAAAATGTTTATTTCAAA 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        910 FFATTTTGAAFAAFAAAAAATTTTAAAAFTTGAFTGAFGTAGAGTTTTGAAACACAG
                                                                                                                                                                                                                                                                                                                     130 TGGTTAAGTTGGGAGAAGTTTGATGTGTGGATGGAGIAITGGGAGGTLAFAFLGAAAAG 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196 AAAAA93AATGEGGGGAALGTGIALGIIIAIIGGAGGAGLGAAGGAGAGAGAGAGAGIGG, 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           430 ACACAAACCAACAACTACAATATATATATAAAATAAATEATGAATTGGTTAAAAGTTTGT 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  224 ArgSlySlcAscArgSerAlaArgIleAlaLysSlnLeuSluAscAfbrArg1leIle 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             670 ngangtranaaarannaanterangatanraaaaanaartagaaagatgatanaaa11811 729
                                                                                                                                                                                                                          55 ProAspPheThrAlaLeuCysClnLysLeuLysTleProAspHisValArqCluArqAla 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35 GlmAspSerGlyProGluAspLeuProLeuValArqLeuGluPheGluGluThrGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    104 LeuLysGlulleAspThrSerThrLysValAspAsaAlaMetSerArgLeuLycLyc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310 CTAAAAGAAATTGATACCAGTACCAAAGTIGATAATGCTATGTCAAGACTGTIGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              264 AshPheIleProPheMetAshSerLeuClyteaValThrSerAshClytesProClaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    490 EGGATCACATTTTTTATTTACCTAAAGGGGAAGIALIACAAATGGAAGATGA EG EGGIGALI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----ValAspLeuAspGluMetSer
     863
0
0
                                                                                                                                              US-09-026-459A-41 (1-897) x US-09-469-522 28 (1-2455)
                         Conscruative:
Mismatches:
  Matches:
                                                                            Indels:
4417.50
96.538
96.538
                                                                         95.398
                                           Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                          75 IrpLeu-----
                         Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .δ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ογ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>ت</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
```

AAAAAGIAACTIGALIAHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	4. Vi (

```
2470 AGGGACGTGTGCTCAAAAGAAGTGCTGAAGGAAGAAAACCTCCTAAACAATGAAAAAA 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2110 GTICAGGAGACATICAAACGIGIITIGAICAAAGAAGAAGAGIAIGATICIAITATATAGIA 2169
                                                                                                                                                                            2170 ITCTATAACTCGGTCTTCATGCAGAGACTGAAAACAAATTTTTGCAGTATGCTTCCACC 2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2350 ATTICAGAAGGICIGGCAACAACAAAAATGACICCAAGAICAAGAAICTIAGIATCA 2409
2050 AAGAALALAGAGGILAAALIGAAAALGALIGIAAGAGALALAGAAGGALGILGIGALGGI 2109
                                                                                                                                 724 PhelyrAsnSerValPheMetGlnArgLeuLysThrAshIleLeuGlnlyrAlaSerThr 743
                                                                                                                                                                                                                         744 ArgProProThrLeuSerProlleProHislleProArgSerProTyllySPheProSer 763
                                                                                                                                                                                                                                                                                                              764 SerProLeuArqIleProGlyGlyAsmIleTyrIleSerProLemLyaSerProTyrLys 783
                                                                                                                                                                                                                                                                                                                                                                                                     784 lleSerGluGlyteuProThrProThrLysMetThrProArgSerArglTeLeuValSer 803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             804 ilediydiuserPhediyThrserGluLysPheGlnLysIleAsnGlnMetValCysAsn B23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       824 SerAspArqValLeuLysArqSerAlaGluGlySerAcaProProLypProLeuLysLys 84+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 844 LeuargPheaspilecludlySeraspGlualaaspClyserLysHisSeuFroGlyClu_B63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        864 SerLysPheGluGluLysLeuAlaGluMetThrSerThrArgThrArgMetGluLysGln 883
                                          704 ValGlnGluThrPheLysArqValLeulleLysGluGluGluTyrAspserllelleVal 723
                                                                                                                                                           Renedict, William F.
Zhou, Yunli
TILE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2650 AAAATGAATGATAGCATGGATACCCCAAAGAAGAGAAAA 2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               884 LysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE, Arnold, White & Durker STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DGS/MS-DGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 22-Dec-1999
CLASSIFICATION: CDRKNOWN -
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 38, Application US/09469522
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             77210 4415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-38
                                                                                     a
                                                                                                                                                                          dd.
                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>a</u>
                                            ĉ
                                                                                                                                    ć
                                                                                                                                                                                                                                                                                                                   ć
                                                                                                                                                                                                                                                                                                                                                                                                        ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
```

```
81 3luMetSerPheThrPheThrGluLeuGlnLysAsnIleGluIleSerValHisLysPhe 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [3] PheAsmLeuLysGlulleAspThrSerThrLysValAspAsnAlaMetSerArgLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ......GTCGACCTAGAT 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               119 GAGATGTCGTTCACTTTTACTCACCTACAGAAAACATAGAAATCAGTGTCCATAAATTC 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .69 ITTAACTTACTAAAAGAAATTGATACCAAGTACCAAAGTTGATAAIGCTATGTCAAGACTG 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 LoutystystyrAspValLouPhcAlaLouPheSertysLouGluArgThrCysGluLou 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141 IleTyrLeuThrGlnProSerSerSerIleSerThrGluIleAsnSerAlaLeuValLeu 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  151 LysValSerTrp11eFfrrPheLeuLeuAlaLysGlyGluValLeuGlnMetGluAspAsp 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  349 AAAGITICIIGGAICACAIIIIIAAITAGCIAAAGGGGAAGIAITACAAAIGGAAGAIGAI 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4.19 CLGGLGATTICALTTCAGTTAATGCTATGTCTTGACTATTTTATTAAAGTCTCAGGT 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201 ProMetLeuLeuLysGluPrcTyrLycThrAlaVallleProIleAsnGlySerProArg 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l MetProProLysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41 AspleatrolenValArgLeuGluthedIuGluThrGluGluProAspheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6. AysolutystleProAspHisValArgGluArgAlaTrpLeuValAspLeuAsp 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67 ACGARANGEGECECECECECTCCTGAG----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DS-09-026 459A-41 (1-897) x US-09-469-522-38 (1-3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
                                                                REFERENCE/DOCKET NUMBER: UTXC:506
IELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         indels:
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE DESCRIPTION: SEQ ID NO: 38: 09 469-522-38
                     NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                                              IELEPHONE: 512/418-3000
                                                                                                                                                                                                       LENGIH: 3323 base pairs
ATTORNATION INFORMATION
                                                                                                                               IELEFAX: 512/474-7577
                                                                                                                                                         INFORMATION FOR SEQ ID NO: 38:
SEQUENCE CHAPACTERISTICS:
                                                                                                                                                                                                                                                    STRANDEDNESS: single
                                                                                                                                                                                                                                 TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 349.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94.878
94.878
93.918
                                                                                                                                                                                                                                                                                                                          NAME, KEY: CDS
                                                                                                                                                                                                                                                                            FORMATIONS.
                                                                                                                                                                                                                                                                                                                                                COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                           Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ∪uory Mateh:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \tilde{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
```

```
1129 TTGTATTACCGAGTAATGGAATCCATGCTTAAATCAGAAGAAGAACGATTALCCATTCAA 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1249 GAGGTTGTAATGGCCACATATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGAT 1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1369 ATCGAAAGTTTTATCAAAGCAGAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAA 1428
                                                                                                                                                                                                                                                                                                                                                                          421 LeuTyrTyrArqValMetGluSerMetLeuLysSerGluGluGluArqLeuSerfleGln 440
                 361 AlaSerAspGlnProSerGluAsnLeuIleSerTyrPheAsnAsnCysThrValAsnPro 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             441 AsnPheSerLysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeu 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      461 GluValValValMetAlaThr/yrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAsp 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        501 TleGluSerPheileLysAlaGluGlyAsnLeuThrAraGluMetItetysHisLeuGlu 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   561 LeuAsaLeuProLeuGlnAsaAsaHisThrAlaAlaAspMetTyrLeuSerProValAry 580
22. The Programme of The Independent of Series of Series of Series 1940
                                                                                                            589 AGAATTATTGAAGTTGTGTGTAAAGAACAIGAATGTAAIATAGATGAGGIGAAAAATGTI 648
                                                                                                                                               261 TyrFheLysAsnPhelleProPheMetAsnSerLeuGlyLeuValThrSerAsnGlyLeu 280
                                                                                                                                                                                     649 TATTICAAAAATITTAIACCTITTAAGAATICTIGGAACTIGTAACATGTAATGGACTI 708
                                                                                                                                                                                                                                                              309 CTAGAGGITGAAAALCTITGTAAACGATACGAAGAAALELALCTIAAAAAATAAAAGATCTA 768
                                                                                                                                                                                                                                                                                                   301 AspAlaArgLeuFheLeuAspHisAspLysThrLeuGluThrAspScrileAspSerFhe 320
                                                                                                                                                                                                                                                                                                                                       769 GATGCAAGATTATTTTTGGATGATGATAAAGTCTTGAGACTGATTGTATAGACAGTTTT 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                       341 HisthrProValArgThtValMctAsnThTleGinGinLeuMetMetlleLeuAsnSer 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        889 PAPACTUCASTIASSACTSTIAIGAACACTATOCAACAATIAATGATGATTITAAATTCA 948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          581 SerProLysLysClySerThrThrArdValAsnSerThrAlaAsnAlaGluthrGln 600
                                                                                                                                                                                                                        281 ProdiuValGluAsmedSerigsArgTyrOluGlufleGyrLeufgsAsmLysAsphen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481 LeuSerPheProTrpIleLeuAsnValLeuAsnLeuLysAlaPheAspPheTyrLysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541 LeuIleLysGlmSerLysAspArqCluGlyProThrAspHisLeuGluSerAlaCysPro
                                                                                                                                                                         , oy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qd
                               Sp
                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                               급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
(1
                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                     \tilde{o}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      οÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
```

```
FULCHARIA HARANA BARANA BARANA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1289 GAGTACCCAGAATTAGAAGATATCATCTGGACCCTTTTCCAGCACACCCTGCAGAATGAG 1848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FEFFET | F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DELIGENTA DE LE CONTRACTO DE LA CONTRACTO CONT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              111101TA-STECACOTTACGATTCCTGGAGGAACATCTATATTCACCCTGAGGT 2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1849 TATGAACTOAFGAGAAGACGATTTGGACCAAATTATGATGTGTTCCATGTATGGCATA 1908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     821 ValCysAsuSerAspArqValLeuLysArgSerAlaGluGlySerAsnProProLysPro 840
                                                                                                                                                                                                                                                                                601 ALathrSerAlaPheGln:LrGlntySPr0LeutySSerThrSerLeuScrLeuPheTyr 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              621 Lyst.ysValTyrArdLeuAlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSer 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                641 GluffisProgluLeugluffisIlefleTrpThrLeuPheglnffisThrLeuglnAsnGlu 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661 TyrylulogMotArgaspargHislogAspOlniloMotMotOyssorWotigrolgilo 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       681 CystysValLysAsuTloAspLeuLysPheLysTleTleValThrAlaTyrLysAspLeu 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               701 ProffisAlaValGlnGluThrPheLysArqValLeuIleLysGluGluGluGluTyrAspSer 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721 HelleValPhelyrAsuSerValPheMetGlnArqLeuLySThrAsnHeLeuGlnTyr 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               741 AlaSerThrArqProProThrLeuSerProlleProHislleProArqSerProTyrLys 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       761 PheProSerSerProLeuArqIleProGlyGlyAsmileTyrIleSerProLeuLysSer 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 ProlythysileserGludlyLeuProThrProThrLysMetThrProArgSerArg11e 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #01 LeuValSerfleGlyGluSerPheClyThrSerGlutysPheClutysTleAsnGlnMet #20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841 LeutystysteuargeheaspileGluGlySerAspGluAlaAspGlySerLysHisLeu 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     86i ProdlydluSerLysPhedludluLysLeuAladluMetThrSerThrArqThrArqMet, 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zhou, Youli TILE OF INVENTION: MODIFIED RETINORLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               881 (InLysGluDysMetAsnAspSerMetAspThrSerAsnLysGluGluDys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bonediet, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 40, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xu, Hong Jì
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fatent No. HS20020191461A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPELLICANE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
```

```
130 AAGGAACTGTGGGGAATCTGTATCTTTATTGCAGCAGTTGACTTAGATGAGATGTGTTC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          190 ACTITIACTGAGCIACAAAAACATAGAAAICAGIGICCATAAAIICTIIAACTIACIA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               125 AspVallenPheAlaLeuPheSerlySleuGluArglhrCysGluLeuTletyrLeuThr 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70 TETAACTEGGGAGAAGTETCATCTGGALGGAGLATLGGGAGALLALALLCAAAAGAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 85 ThrPheThrGluLeuGluLysAsn11eGluIleSerValHisLysPhePheAsnLeuLeu 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValAsplouAspGluMetSerPhe 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    56 AspPheThrAlaLeuCysClnLysLeuLysTleProAspHisValArgGluArgAlaTrp 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10% LysqlulloApfluSorfbrlysValAspAsmAlaMctSerArqLeaLealpolpafyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ξ
                                                                                                                                                                                                  COMPUTER: IFM PC compatible
OPERATING SYSTEM: PC-DOS/MS-PAS
SOFTWARE: PatentIn Release #1.0, Version #1.
CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-026-459A-41 (1-897) x US-09-469-522-30 (1-3392)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Course to tive:
Mismatches:
                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                               APPERATOR APMARE TREES, SLD FILLING DALE: 22-Dec-1999
CLASSIFICATION: <UNKnown +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ ID No: 40:
                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                               41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOO'KET NUMBER:
                                                                                                                                                                             MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGIH: 3392 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: 512/418:3000
                                                                                                                                                                                                                                                                                                                                                                                   FILLING DATE: + Unknown +
                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Ribler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                David W.
                                                         STREEL: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2628
NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4307.50
96.418
96.458
                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 910.18
                                                                                                                                    77210-4434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
                                                                            CITY: Houston
                                                                                                                   COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Persent Similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (18-09-469-522-30)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   76 Leur-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
CN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
```

1990 AATATAGAGCTTAAATTCAAAATCATIGTAAGAGGAIAGGATGTTGGTGTGTGT 2049 2170 CCCCCTACCTTGTCACCAATACCTCACATTCCTGGAAGCCCTTACAAGTLCCTAGTTCA 2229 2290 TCAGAAGGTCTGCCAACAACAAAAATGACTCCAAGAATCAAGAATCTJAGTALCAATJ 2349 525 ArgiloMctGluSerLeaAlaTrpLeuSerAspSerProLeuPheAspLeuTletysGln 544 585 LysGlySerThrThrArgValAsnSerThrAlaAsnAlaCluThrGlnAlaThrSerAla 604 785 SordinglytenProThrProThrlySMetThrProArgserArgileLeuValSerfle 8e4 HeLysAlaGluSlyAsmLeuThrArqCluMetHleLysHisLeuGluArqCysGluHis 524 625 ArgLeuAlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisProGlu 644 645 LeuGluHisTlelleTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMet 664 68% AsnileAspLeurysPhetysIleIleValThrAlaTyrLysAspLeuFroHisAlaVal 704 725 TyrAsnSerValPheMetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSerThrArg 744 745 ProProThrLeuSerProlleProHisIleProArqSerProTyrLysPheProSerSer 764 765 ProLouArglicProdigGlyAsnileTyrileScrProLouIysScrProTyrigsfile 784 845 ArgphoAspiloQluQlygerAspSluAlaAspClySerlysHisLeuProGlyGluSer 864 825 AspArgValLeuLysArgSerAlaGluGlySerAsnProProLysProLeuLysLeu 844 865 LysPheGlnGlnLysLeuAlaGluMetThrSerThrArqThrArqMetGlnLysGlnLys 884 545 SerLysAspArgGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuPro 565 LeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLys 2470 GGGTTTGATA FTGAAGGAFGASATGAAGGAGATGGGAAGTAAACATGTGGGGGGGGGG qu ; q ò ζ Dβ ò ò ò q 9 ó q q q g qq ö õ οğ Š õ ò 9 á οy

```
25.00 AAATTICAGTAGAAATTGGCAATAAATGACTGGAAGGAGAATGGAAAAGGAGAAA 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MetProProLysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21 ProAlaProProProProProProProGluGluAspProGluGluAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentlu Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 477
8 46
                                                        US 09 026 459A 41 (1 897) x US 09-469-522 46 (1 837)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: *Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 01XC:505
HELE-COMMONICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BOUGHINE 7..2613
SEQUENCE DESCRIPTION: SEQ TO NOT 46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                             Benedict, William F.
                                                                                                                                                                           Sequence 45, Application US/09469522
Fatent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                        PROFEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGIH: 3477 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          512/418 - 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILLING DATE: *Unknown.>
ATTORNEY/AGENT INPORMATION:
NAME: HIDLEL, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: P.O. HOX 4434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 46; SEQUENCE CHARACTERISTICS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCESS: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READARDE FORM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4264.00
                                                                                                                                                                                                                                      APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                          shi xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92.058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961.06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tobology: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90.038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CLS
                                                                                                                                                                                                                                                                                                                                                                                                                                      "ITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.5.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIAIE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hest Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05 09 469 522 46
                                                                                                                                                      05 09 469 522 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match:
b8:
                                                                                                                                     PESSIEL 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
```

```
270 AsnSert.cuGtyt.cuValThrScrAshClyt.cuProGluValGtuAsnt.cuScrTysArq 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           310 LysThrLeuGluThrAspSerIleAspSerPheGluThrGluArqThrProArqLysSer 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           850 AAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAACACCACGAAAAAAGT 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               330 Asni.cuAspGluGluValAsnValTieProProHisThnProValArqThrValMctAsn 449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  350 ThrileGinGinLeuMetMetIleLeuAsnSerAlaSerAspSinProSerGluAsnLeu 469
                                                                                                                                                                                                                                                                 507 AICIGIATETIATIGEAGEAGIGACIAGAGIGEGITEA-TITIA-TGAGETA 665
                                                                                                                                                                                                                                                                                                                                   150 IleSerThrGlutteAsnSerAlaLeuValteuLysValSerTrplTeThrPheteuLeu 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      210 ThralaVallleProlleAsnClySerProArgThrProArgArgGlyGlnAsnArgSer 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               670 CATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATACCTTTATG 729
67 INCOCACHOCCGCCGCCGCCGCCTINITICAGGAGGACCTAGAGGAGGAGGACACAGGAGT 126
                                                     247 CITTCATCIGIGAGAIGGAGIALIGGGAGGILALALICAAAAGAAAAAAAAALIGIGGGAA 305
                                                                                                                                                                                                                                                                                                                  90 GInLysAsnileGluileSerValHisLysPherbcAsnizenizentysGluileAspihr 109
                                                                                                                                                                                                                                                                                                                                                                                    110 SerThrLysValAspAsuAlaMetSerArgLeuLysLysTyrAspValLeuPheAla 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           487 CTCTTCAGCAAATTGGAAAGGACATGTGAACTTATATATTTGAGAGAAACOAGGAGTTO3 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                170 AlaLysGlyGluValLeuGlnMetGluAspAspLeuValIleSerPheGlnLeuMetLeu 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190 CysValLeuAspTyrPheIleLysLeuSerProProMetLeuLeuLysGluProTyrLys 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41 AspleuProLeuValArqLeuGluPheGluGluThrGluGluProAspPbeThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        230 AlaArqIleAlaLysClubeuGluAsnAspTbrArqIleIleGluValLeu/ysLysGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              250 BisGluCysAsmIleAspCluValLysAsmValTyrPheLycAcmPhelleFroFreMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      290 TyrGluGluIleTyrLeuLysAsnLysAspLeuAspAlaArgLeuPheLeuAspHisAsp
                                                                                                                                                                                                                                            61 CysGlnLysLeuLysTleProAspHisValArqGluArqAlaTrpLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               547 ATG-----
                                    ŝ
                                                                   g
                                                                                                      ò
                                                                                                                                       3
                                                                                                                                                                          á
                                                                                                                                                                                                           <u>a</u>
                                                                                                                                                                                                                                            ć
                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                  ें
                                                                                                                                                                                                                                                                                                                                                                                                                     <u>q</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \tilde{c}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
```

																	•
389 1089	409 1149	429 1209	1269	469 1±29	489 1389	509	529 1509	549 1569	569 1629	589 1689	609 1749	629 1809	649 . 1869	669 1929	£ял 1989	709	729
yrPheashasndysThrValasnProLysG1uSe 	ASPUTEGTYTYTTTPPELYSCTULYSPBEATLAYARAAU 	TTGSTYSCEGINAEGTYTTYSLCBGTYVATAEGTCUTYFTYFAEGVATM FELLETTETTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	O LEULYSSE GLUGLUGLUARGLEUSEFILEGIDASAPHESEFLYSLEULEUASAASASA TEEFEETTITTITTITTITTITTITTITTITTITTITTITTITT	450 IlePheffisMetSerLeutleuAlacysAlaLeuGluValValWalMetAlaThrTyrSerArg 	Ser Dr Ser Gluasnicouaspser Glythraspicouserpheprotrp Heludenasn   -	LeudshlentysAlaPheAspPheTytLysVallleGluSerPheIleLysAladluG 	. Asole-ofheargolometilelysfisle-ofuargcysgluffisargilemetgluser 	Leualafrpi.euseraspserproteupheaspleulletyschnserlysaspargel 	GlyProThrAspilisLeuGluSerAlaOysProTaganLeuProLaginAspAsn 	Theratarianspmettyrleuserprovatargserprolyslyslysglyserthe 	A POTATA SENSON THE A LAGRAN SOLDTHE OTHER OFFICE SENSOLD THE OTHER SENSOLD THE OTHER OTHER OTHER SENSOLD THE OTHER SENSOLD TO SENSOLD THE OTHER SENSOLD TO SENSOLD THE OTHER SENSOLD THE	ProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArgleuAla 	ArqLeuAsnThrLeuCysGluArqLeuLeuSerGluHisProGluLeuGluHislle 	PPIDELO WEREGINESTREEWESTANDEN TYPECTREEWEATGASPATORIS 	Asportutiomolmologopmologotti ittiittiittiittiittiittiittiittiitt	PhetysilelleValThFAlaTyrtycAsptecFroHisAlaValGlafh 	$\sim - \circ$
· 01	0501 050		,-		_	-	***	s 181	2 6	V g	र्ज हुँ	6.1	. E	3 8	9 5	1.45	7
5 £	S £	5 3	5 £	5 5	동 골	충충	충출	충글	÷ #	숙광		≥ ±	\$ 8	학 중	숙 중	\$ 3	중 중

```
2350 ACTICTERGARGITCCRUBARATARATORGIA GETATGIA ACTICTERGARGIC CAGARA 2409
                                                                                                                                                                                                                                                                                                                                                                             2530 CIGGGAGAAATGACTICTACTCGAACACGAATGGAAAAGAGAAAAGAATGATAGC 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2470 GGATICAGATIGAAGCAGATIGGAAGTAAACATCTCCCAGGAGAGTCCAAATTTTAGCAGAAA 2529
                                                                                                                                                                                                                                                                                                      810 ThrSorCluiysPheCluiysIleAsnCluMetValCysAsnScrAspArqValLculys 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                         850 GlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSerLyoPbcGlnGlnLyg 869
                                                                                                                                                    770 GLyGlyAsnileTyrileSerProLealysSerProTyrIysIleSerCluGlyLouPro 789
                                                                                                                                                                                                                               790 ThrProThrLysMetThrProArgSerArg1leLeuValSerIleGlyGluSerPheGly 809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  870 LoualaGluMetThrSorThrargThrargMetGlnLysGlnLysMetAsnAspSerMet 889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF ENVINCEN. MODIFIED RETINABLAGEOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Arnold, White & Durkee D. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 03, 55, 469, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER, 18M PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APFLICATION NUMBER: 09/026,459
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTS
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Benedict, William F. Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   890 AspThrSerAsnLysGluGluLys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 48, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COPPESPONDENCE ADDRESS:
ADDRESSEE, Arnold,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. US20020151461A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: P.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                     90
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
```

```
247 CELECATOLOGALOGACIALIGOGAGCITALAFECAAAAAGAAAAAGTGEGGGA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              007 APCPGTATCTTTATTGCAGCAGTIGACCTAGATGAGATGTCGTTCACTTTTACTGAGCTA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90 ChitysAsn11eGlu11eSerValHistysPhePheAsnLeuteutysGlu11eAspThr 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               427 AGTACCAAAAGHGATAALGCTAAGACHGTGAAGAAGTATGATTGTTTGCA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               130 LoutheSerLysLeuGluArqThrCysGluLouTleTyrLeuThrGlnProSerSerSer 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         487 CFCTFCAGCAAATIGGAAAAGGACAFGTGAAACITATATATTTGACACAACCGAGGAGTTCG 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  150 TreserthrillutteAsnSerAlaLeuValleuLysValSerTrplTeThrPheLeuLeu 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITTELLITELLE LELLETTELLE TELLETTELLE TELLETTELLE TELLETTELLE TELLETTELLE 647 ATALETACHEGA FAZA TELLETTELLE 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       170 AlalysGlyGluValLeuGluMetGluAspAspLeuValIleSerPheGluLeuMetLeu 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           190 (ysvallcuasplyrPhellelyslcuSerProProMetLeuleulysGluProlyrLys 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              210 thrAlaValifeProffeAsnGlySerProArgThrProArgArgGlyGlnAsnArgSer 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41 AspteuProteuValArgteufluPbcGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValAsplenAspGluMetSerPhelhrPhelhrGluLeu 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 CyschilystentystleProAspHisValArgGluArgAlaTrpLeu------76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MethroProfysibiProArdLysibiAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                   3.58.5
840
                                                                                                                                                                                                                                                                                                                                                                                                                                                   US 09 026 459A 41 (1-897) x US 09-469-522-48 (1-3383)
                                                                                                                                                                                                                                                                                                                                            Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                   Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                      indels:
                                                                                                                                                                                          LOCATION: 7.,2619
SEQUENCE DESCRIPTION: SEQ 1D NO: 48:
                                                        LENGTH: 484 base pairs
TYPE: nucleic acid
STRANDEDNESS: STRATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      _
_
_
_
TELEFAX: 512/474 7577
                 INFORMATION FOR SEQ ID NO. 48:
SEQUENCE CHARACLERISTICS:
                                                                                                                                                                                                                                                                                                                   4256.00
96.52%
90.52%
91.90%
                                                                                                                             TOPOLOGY: Linear
                                                                                                                                                                      SOL
                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
                                                                                                                                                                                                                                                                          Albement Scores:
                                                                                                                                                                                                                                       08 09 469 522 48
                                                                                                                                                                                                                                                                                                                                                                               Query Materic
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \frac{\hat{\Xi}}{\bar{\Xi}}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           :5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
```

qc	727	ACA	1 11
ć	230	AlaArqlleAlaLysGlnLeuGlnAsnAspThrArqlleileGluValleuCysLysGlu	642
qq	735		745
Qy	250	HisGluCysAsnlleAspGluVallysAsnVallyrPhelysAsnPhelleProPheMet	F1 14.7
qq	735		7 + 5
43 10	270	ASSSETEUGLY LEGVALTEERS GEGOSTY LOOPENSCHOOLSTANDER GEGOSTERY LYGARY THE FILL OF THE FILL OF THE FILL OF THE FILL OF THE FILL OF A ARYONA AATTO TO THOSACH GLAACATOTAA TOTAA TOTAA TOTAA ARYONA	285
Οy	290	TyrGluGluTleTyrLeutysAsnLysAspLeuAspAlaArqJedFleFeuAspdisAsp	4014
qu	796	TACGAAGAATTTATCITAAAAATAAAGATCIAGAIGCAAGAIAITATTTGGATCAAIGAT	3.58
oy .	310	LystbrieuGhrthrAspSer HeAspSer Phethurthrithin hreatqrysser {	474
ପୁଣ :	856	AAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAACACGAAGAAAAGT	41.5
du du	916	AshLeraksp6TuGTuVaTAshVaTTLeProProHisThrProVaTArqThrVaTMetAsh 	849 975
λο	350	ThrileGinGinLeuWetMetTileLeuAsnSerAlaSerAspGinProSerGluAsnLeu	469
q <sub>Q</sub>	926	ACTATCCAACAATTAATGATGATTTTAAATTCAGGAAGTGATGAACTTCAGAAAATCTG	1035
od .	370 1036	370 HosertyrpheasnashCysthrvalashProtysGluserHelecusysalgvallys 389   HELLITHTELLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITH 036 ATTECTATTTAACAACTGCACAGTGAATCCAAAAGAAAGTATCTGAAAAGAGTAACTGAAG 109	389 1095
ογ	390	AspTlettyTyrllePheLystlutysPheAlatysAlaValstythdtytythdtu	409
q	1096	GATATAGGATAGATATATTI I I I I I I I I I I I I I I I I	1155
ογ	410	HeGlyserGlnArgfyrLysLetGlyValAraLeuTyrTyrAraValMetGluSerMet	424
qu	1156	ATTGGATCACAGCGATACAAACTTGGAGTLCGCTTGTALTACCGAGTAATGGAALCCATG	1.215
δο Q	430	LeutysSerGluGluGluArgleuserTheGluAsnibeSerTysLeuteuAsnAsn 	444
δ	450	IlePheHisMetSerLeuLeuAlarysAlaLeudluValValMetAlaTh TyrSetAra	
qu	1276		1 3 45,
δλ	470	SerThrSerGinAsnLeuAspSerGlyThrAspLeuSerPheProTreileLeuAshVal	4.84
qq	1336	AGTACATCTCAGAATCTTCATTCTGGAACAGALIIGICTTIICCALGGATTCTGAATGTG	1 435
ΟŸ	440	LeuAsn.cutysAlaPheAspPhetyFtysValTLeGtuSeTtheTLeGysAlactudity	603
qq	1396	CITAATTIAAAAGCTTIGAITTITACAAAGIGAFGGAAAGITTTAFCAAAGAAGAG	145.5
δ	510	AsnLeuThrArgGluMet 11eLysHiseLeuGhuArgCysGluHisArgTeMet GluSer	623
qu	1456	AAC FTGAGAAGAAA FGA FAAAAGA FFFAGAATGA FGTGAAGA FCGAA FGGAA FC	15.15
ςò	530		543
ପୁ	1516	CTTGCATGGCTCTCASATTCACCTTTATTGATCTTATTAAACAALCAAGAACGAGAA	1575
y a	550	GIYPTOThrAspHistouGluSerAlaCysProteuAsnLeuProteutathasnAsnHis 	94.9
Ì	075	The Alaban Manager and and an Company of the Compan	
à a	1636	THITATAALAANSPIRELYITERUSEERIOOVATATASEERING YSSEYSIYSSIYSSIYSSEYTTIITTIITTIITTIITTIITTIITTIITTIITTIITT	784 1645

```
76) Proffeltoffs LeifoargerfrögrigshefröserSchlolauaig Heito 769
2126 COARTACCICACAIGCICAAAGCCTTACAAAHTTTCTAGTICACGTTACSGAIGCI 2235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22.49. GGAGGGAACALCTATATTICACCCCCCAACATACAAAAATTCAGAAGGTCTGCCA 2295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2296 ACACCAACAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAATCATTGGGG 2355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.556 ACTTGTGAGAAGTTCCAGAAAATAAATCAGAATGGTATGTAACAGCGAGGGGTGTGAAA 2415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24.16 AGAAGTIGGTIGAAGGAAGCAACCCTTCTTAAACCAGTIGAAAAAACTTAGGTTTTGATATTTGAA 2475
                                                                                                                                                                             639 Arabewash Phrieudyschargteal auser Gludis ProGludeu Gludis Heller 649
                                                                                      4.10 ProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArgLeuAlaTyrLeu 629
                                                                                                                                                                                                                                                                      850 IrpIhrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArgAspArgHisLeu 669
                                                                                                                                                                                                                                                                                                                                                                  870 AspendileMetMetGysserMetTerriyIleCystxeValLysAsmIleAspLeuLys 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           740 MetallaArqLeuLysThrAsnTleLeuchlnTyrAlaSerThrArgProProThrLeuSer 749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              770 GlyclyAsaileTyrileSerProLeutysSerProTyrLysileSerGluGlyLeuPro 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79. ThrProThrLysMetThrProArgSerArgIleLouValSerIleGlyGluSerPheGly 809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         819 Thr SerdiniysPheGlntysTleAsnClnMetValCysAsnScrAspArgValLeutys 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     *** AcasorAladyrdysorAsaBroErstysEraladysEysLeuArgPicAspileGlu 849
900 ArqValAsuSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              45 - 01; SerAspGluAlaAspGlySerLySHisLeuProGlyGluSerLysPheCluGlnLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2594 GATACTICAAACAAGGAAAAA 2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 42, Application US/09469522
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   890 AspThrSerAsnLysGluGluLys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLILITANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-09 469-522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
```

Benedict, William F.

```
81 GluMetSerPheThrPheThrGluLeuGlnLysAsn1leGluIleSerValHisLysPhe 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101 PheAsnLeuLysGluIleAspThrSerThrLysValAspAsnAlaMet.SerArqLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MethroprolysThrProArglysThrAlaAlaThrAlaAlaAlaAlaAlaAlaCluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41 AspLeuProLeuValArgLeuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 CysGlnLysLeuLyslleProAspHisValArgCluArgAlaTrpLeuValAspLeuAsp 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187 IGTCAGAAATTAAAGATACAGAGAGAGAGAGAGAGAGATTA-----
Zhou, Yunli
IITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     235 ------ACTTGGGAGAAGTT-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (18-09-026-459A-41 (1-897) x (18-09-469-522-42 (1-3347)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches.
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                          ADDRESSEE Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE DESCRIPTION: SEQ ID NO: 42:
                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                   COUNTRY: USA
ZIP: 77210-4433
COMPUTER PEADABLE FORM:
MEDIUM TYPE: Floppy disk
                                      PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 3347 base pairs
                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
AFFLITATION NUMBER: 05,
FILING DATE: 22-Dec-199
                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 512/474-7577
                                                                                                                  STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 42: SEQUENCE CHARACTERISTICS:
                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .2583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4240.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.65%
92.42%
91.56%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY. CDS
                                                                                                                                  Houston
                                                                                                                                                     STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Aliqnment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-469-522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .. Oy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

5 ŝ 5 = ŝ = 5 Ê 3 ŝ S ŝ 5 ź Ś ŝ ŝ Ξ. 5 £ ŝ

750	:::         :::	279
171	LoutystystyrAspValLoutheAlatoutheSertystouGluArqfhrfysGlutou	140
780	ATTCAAAAAAAAAAAAAAAATGTGGGAATCTGT	312
141	HeTyrLeuThrishaProSerSerSerTheSerThrishulleAsinSerAlaLeuValLeu   HELLETTER   HELLEUTH   HELLEUTH	160 372
161	LysVJJSerTrpIleThrPheLeaLeaAlaLysGlyGluValLeuGluMetGluAspAsp 	180 432
181	LegyallieserphecleiceMeticeGysValleeAspfyrbhellelyslesScrbro 	200 492
201	ProMectionLengtysistatictysThrNlaValTLeProfiteAssGlySerProArg	220 552
221	The Prodest and yellows and specificate is a solution of the Alberta and Alber	240 612
241	AFTHELLITHHITHHITHHITHHITHHITHHITHHITHHITHHIT	260 672
	TyrPheLysAsnPhelleFroFheMeLAsnSerLeuGlyLeuValThrSerAsnGlyLeu HELLELEHTELHELHELHELHELHELHELHELHELHELHELHELHELHE	280 732
733	Prodluvaldiuasnieuseriysarafyrdludlullefyrleutyaasniysaspieu 11410-111141111111111111111111111111111	300 792
101	Aspaladequenceudsphisasphysthreuglitheaspscelleaspscephe   - - - - - - - - - - - - - - - - - -	320 852
421 853	GLUTHROLDARGTHEPEGARGE/SSETASDLEGGAGGGGGGAGAAAAAAAAAAAAAAAAAAAAAAAAAA	340 912
3 <b>4</b> 18	HISTREPEDVALARGTERVALMERASOTARTIFGINGINGENMERMETHELIEGENASOSER	360 972
46.1	Alasovaspilindrosovicioasmicoi ilesertyrpheasmasmicysthrvalasmiroi illililililililililililililililililil	380 1032
1033	LysölüserilelenlysarqyallysaspileölytyrilePkelysölülysPheAla 	<b>4</b> 00 1092
C 7		420 1152
421	HTTTTTT SAAGAAGAACG	440 1212
<+	AshipheserLysLeuLeuAshAspAshIlePheffisMetSerLeuLeuAladysAlaLeu 	460 1272
461	JuValValMetAlaThrTyrSerArqSerThrSerGlnAsnLeuAspSerGlyThrA	480

3

Š

3

5 Ξ Ś

5

3

â

.7

2

ŝ

```
693 GCAACCTCAGCCTTCCAGACCCAGAGCCATTGAAATCTAGCTCTCTTTGACTGTTTTAT 1752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2173 TITCCIAGITCACCTIACGGATICCTGGAGGGAACATCTATATITCACCCTGAAGAGT 2232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1273 GAGGTTGTAATGGCCACATATAGCAGAAGTACATCATCAAATCTTGATTCTGGAACAGAT 1332
                                                                                                                                                              1933 TGCAAAGFGAAGAATATAGACCTTAAATTCAAAATCATTGTAAGAGAGATACAAGGATGTT 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                681 CystysValLypAsnIleAspLeuLysPheLysIle!leValThrAlaTytAsAspLeu 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           741 AlaSerThrArgProProThrLeuSerProIleProHisHleProArgSerProTyrLys 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuValSerIleGlyGluSerPheGlyThrSerGluLysPheGlnLysIleAsuGlnMet 820
                                                                                                                                                                                                                                                              561 LeuAsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArq 580
                                                                                                                                                                                                                                                                                                                        SerProtystystysClySerThrThrAtqValAsnSerThrAlaAsnAlaGluThrGln 600
                                                                                                                                                                                                                                                                                                                                                                               AlaThrSerAlaPheClDTbrClnLysProLeuLysSerThrSerLeuGerf.cuthr197 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 641 GluHisProGluLeuGluHisIleIleTrpThrLeuPheGlnHisThrLeuGlnAsnGlu 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781 ProTyrLyslleSerGluGlyLeuProThrProThrLysMetThrProAigSerArqlle 800
                            481 GeuserPheProTrp11eLeuasnValleuasni.eutysAlaPheAspPhelyrtysVal 500
                                                                                                                                                                                                       541 LoutleLysGinSerLysAspArdGluGlyProthrAspHisLouGluSerAladysPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2113 | GCTTCCACCAGGCCCCCTACCTTGTCACATAGCTGACATTGCCTGAAAGCCCTTACAAG
                                                                                                                                             521 ArgCysGluHisArqlleMetGluSerLeuAlalrpLeuSerAspSerProLeuPheAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2233 CCATATAAATITICAGAACCICTCCCAAAAACAAAAATGACTCCAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721 HelleValPheTyrAsnSerValPheMetGlnArgheubysThrAsnHebeuGlnTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  761 PheProSerSerProLeuArglleProGlyGlyAsnileTyrlleSerProLeuDysSer
                                                                                                                                                                                                                                                                                                                                                                                                581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q()
 q
                              ò
                                                        .
G
                                                                                      ĉ
                                                                                                                qq
                                                                                                                                               ò
                                                                                                                                                                         G
                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                90
                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                      ^{\circ}
                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \overset{\circ}{\sim}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ō,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
```

```
2473 CCROSAGRICICARATTICAGCAGAAACTGGGGAGAAATGACTFCTACTGGAGGAGATG 2532
                                                                                  861 ProGlyGluSerLysPheGlnGlnLysLeuAlaGluMetThrSerThrArgThrArgMet 880
841 LeulystystenArgPheAsp11eGluGlySerAspGluAlaAspGlySerLysHisLeu 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MODIFIED RETINORIASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                             2533 CAAAAGCAGAAAATGAATGATAGCATGGATACCTCAAACAAGAAGAAGAAA 2583
                                                                                                                                                                    881 SinLysGlnLysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCHTWARE: Patentin Bringer #1 0, Vergion #1 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3323
826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER - He, 34/444, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER PRADABLE PORM.
MEDIUM TYPE: ELOPOPY disk
COMPUTER: IRM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NO: 32:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                        Hu, Shi-Xuc
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknowno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (BLEGOMMUNICALION INFORMATION:
                                                                                                                                                                                                                                                                                                    Sequence 32, Application US/09469522
Fathor No. PSpro2019146[A]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE DESCRIPTION: $10,12559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY, AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELFFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               David W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 32: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SECURIORS: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DRRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4219.00
97.42%
96.83%
91.10%
                                                                                                                                                                                                                                                                                                                                                                      APPLICANI: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: COS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Hibler,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
                                                                                                                                                                                                                                                                                                                        fent No Heginganganga
General information:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US 03 458-522 32
                                                                                                                                                                                                                                                                             US 05 469 522 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Juery Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No.:
                                                                                                                                                                                                                                                           RESULT 12
                                                                                                                                                                         Š
```

38 09 026-459A 41 (1-897) x US-09 469 522-32 (1-3323)

```
3⊖4
                                                                                                  :::
61 AAGGAAÇTGTEGGGAATETGTATGTTTGEAGCAGTTGACCTAGAFGAGATGTGGTTC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          205 LysGluProTyrLysThrAlaValIleProIleAscGlySerProArgThrProArgArg 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     225 ClyclnAsnArgSerAlaArgHeAlaLysGlnLeuCloAsnAspThrAryTletHeClu 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          265 PhelleProPheMetAsnSerLeuGlyLeuValThrSerAsnGlyLeuFroGluValGl: 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        365 ProserGluAsnLeuileSerTyrPheAsnAsnCysThrValAsnProLysGluSerflle 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CirclyCysValGlufleClySerGloArgTyrLysLeuGlyValArgLeuTyrTyrArg 424
                                                                                                                                                     85 ThrPheThrGluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsuLeuLeu 104
                                    1 GCCATCATGGAGAAAGTTTCATCTGTGGATGGAGTATTGGGGGGTTAIAITGAAAGAAA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     285 AsnicuScrigsArgTgrCluCluCluTicutgsAsnigsAspicuAspAlaArqicu
                                                                         721 AATCTITCTAAACGAIACGAAAAIITAICIIAAAAAIAAAGAICTAGAIGCAAGAIIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781 TEFFERGATCATCATAAAACTCTTCAGACTGATTCTATAGACAGTFTTGAAACACAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 GAMONAMONNIGACHONIGAGAANIGGAAAGGACATGTGAAAGTAIIIGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    165 HeThrPheteuLeuAlatySClyGluValLeuGlmMetGluAspAspLeuVallleSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             245 ValleuC,s1,sGluHis31.C,sAstIleAsp31.Vall;sAstVall,tEhc1,cAuc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     305 PheLeuAspHisAspLysThrLeuGlnThrAspSerIleAspSerPheGluThrGlnAra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                325 ThrProArqLysSerAsnLeuAspGluGluValAsnValIleProProHisThrProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            345 ArgThrValMctAshThrIlcGInGInLcuMetMctIlcLcuAshSerAlaScrAspOlL
                                                                                                                                                                                                                               105 LysGlulleAspThrSerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyr
                                                                                                                                                                                                                                                                                                                                                                                      145 GluProSerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaLeuCysClnLysLeuLyslleProAspHisVal---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .č7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                  40
                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                           Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
```

		· <del>- · · · · · · - ·</del>														:		
	/s 444 	st 464 	ro 484 	ne 504 	is 524 	In 544 	-o 564 	/s 584 	la 604 	r 624    1740    1740	Lu 644 	et 664 	rs 684 	al 704 	ne 724 	rq 744 	ar 764 	le 784
THEFT FOR THE FOREST TO STATE OF THE STATE O	ValMetelluserMeteurupsserdludludluarqteuser (1eGthasadhesertys)   HEELELLUH   HELLI   HELLI	Leufeutsmasisksriftbetietlismet Serteuteutaacysaladeud uvalvalmet 1911/11/11/11/11/11/11/11/11/11/11/11/11	Alathi Tyi Serai qSerthi Serdinashi, eunaspserdi ythraspi.euSerphePro 	TEPTICLAUASHVATLCUASGLOULYSALAPhoAspPhoTyTLySVATHOGTUSOFPho 	HetysAlagluglyasnteothracaglomettletysHisteogluargysgluHis 	ArqII-MetGluserLenAlaIrpLenserAspSerProLeuPheAspLeuIl-EUSGln 	Settysaspatotlotlyptotbrasphisteutluseralaeysproteuasniceupro EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE	LeothashashisthiadadaaspwettyrLeoseefersyalargsetferdystys Ellittiilittiilittiilittiilittiilittiilittiilittiilittiilittiilittii Eleotaaaalaateatacacacaalaisiattiilittiilittiilittiilittiilittiilittiilittiilittiilittiilittiilittiilittiilitt	Lysellyse-cthcthcardyslasuse-cthralaasualusiurhrohmlathrserala 11111111111111111111111111111111111	Phot high the graph of outlysisor the Set Leads of Leadholy High lystigs by a 1Tyr north of the Hiller of	ArqueuAlafyrbeuArqueuAsnfhrbeuCysGluArqbeubeuSerGluffisProGlu 111111111111111111111111111111111111	Leugluffistle HetrpfhileuPheglinffsthileugluAsnglufyrGluLeuMet. 	Ardasparqhistogaspoletiomermeroyssemertyrolyticoystysvallys   Hearthilleteleteleteleteleteleteleteleteletele	ABB [1-0-ABP] 0-01 ys/Pb0 (ys/10-11-0-V) The All after 15 ys/spf 0-0-ys/Pb1 after 15 11 11 11 11 11 11 11 11 11 11 11 11	GDGGUThr Phetys ArgValleuthetys GDGGUGLUTyr AspSerthet BeValPhe 	PyrAsinSer Va PheMet Chiat quentys thrasin l'elegit hi yra la Ser Thrata Ettilli ettilli ettilli TATAACT ettilli	Probrothic Leusser Prolleprollis II behandser Protyr Lysele Broserser 114   114   114   114   114   114   114   114   114   114   114   114   114   114   114   114   114   114   114 evertan tropacha accaatao in acada in cente adalescenta accaa in receasing	Protoutrativeroxitystyssatietyrilesereroteadyssererotyritystie
																	ProProf	ProLeu
1081	425	445	465	485	1.481	5.2%	545	15.61	585 1621	60.5 18.81	6.2%	645	665 1861	1921	705	725	74%	765
43	5 3	5 3	\$ €	5 3	5 3	5 3	42	\$ £	\$ 4 5 2	5 3	5 3	\( \frac{4}{5} \)	5 G	\$ <u>\$</u>	5 3	5 3	35 E	ŝ

```
2161 COUTTAGGGATICOTGGAGGGAACAICIAIALLICACO CIGAAGAGTO VAIATAAAATT 2220
                                                                            2221 TCAGAAGGTCTGCCAACACGAAAAATGACTCAAGATGAAGATTTAGTATGAATT 2280
                                                                                                                                                                                      825 AspargValLeuLysArgSerAlaCluClySerAsnProProLysProLeuLysLysLeu 844
                                    845 ArgPheAspileGluGlySetAspGluAlaAspGlySetLysHisLeuProMyGluSer 864
                                                                                                                                                                                                                                                                                                                                               865 LysPheGluGlnLysLeuAlaGluMetThrSerThrArqThrArqMetGluLysB84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OFEKAIING SYSIEM: PC-DOS/MS-1805 SOFTWARE: PatentIn Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2521 AFGAATGATAGCATGGATACCTCAAACAAGGAAGAAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                          885 MetAsnAspSerMetAspThrSerAsnLysdTudlydluLys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE, ATTGIG, White & Durkee
STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION DATA:
FILING DATE: 22-Dec-1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: UTXC: 506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA: AFFLICATION NUMBER: 05/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hu, Shi xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 34, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 4266 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <Unknown -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INPORMATION FOR SEQ ID NO: 34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
ZIP: 77210:4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : Patent No. US20020151461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-469-522:34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE
                                          Ś
                                                                            <u>a</u>
                                                                                                                  ŝ
                                                                                                                                                    3
                                                                                                                                                                                            ć
                                                                                                                                                                                                                               а
С
                                                                                                                                                                                                                                                                       ें
                                                                                                                                                                                                                                                                                                         <u>a</u>
                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
```

		SPOURICE DESCRISSOR 522 - 34	TH Oak -Notial	NO+ 34;		
Alianm Pred. Score: Perces Best L Query DB:		t scores: similarity: a: Similarity:	0 4217.00 100.00% 100.00% 91.06%	Lenath. Matches: Conservative: Mismatches: Indels: Gaps:	M.: corres: 0 Length. 3266 M.: 4217.00 Matches: 821 Conservative: 0 Ara: Similarity: 100.00% Mismatches: 0 Match: 10 G6% Gaps: 0	
18 04	970	.459A-41 (1-89	7) x US-09-469	1-522-34 (1-3266)		
5 £	į. ÷	ValAsplenAspG 	luMetSerPhelhr 	PheThrGluteuGlnt. 	ysAsnileGluileSer 	96
\$ ±	7.4 1000	ValHisipsPheP [HIIIIIIIII] GICCATAAAFTCT	heasnienteniys [ETFIIIIIIII TFAACHACFAAAA	GluffeAspThrSerT 	ti LysValAspAsnAla 	115
3 B	11.7	MetSerArgLeuL 	enLysLysTyrAsp 	ValleuPheAlaLeuP 	heSerLysLeuGluArg 	136
\$ <b>±</b>	1.47	Threyscluteur 	JelyrLeuThrGlo 	ProSerSerSerlleS [1111111111111] [CCCAGCAGITCGAIAT	erthrGlulleAsnSer 	156
5 ±	157 280	AlaLeuValLeuL 	ysvalSerTrp11e 	ThrPheteuLeuAlaL	ysGlyGluVall.cuGln 	339
<u>3</u> €	177 140	MetGlaAspAspL 	euValileSerPhe 	GinLeuMetLeuCysV 	alLeuAspTyrPheIle 	399
	197 400	LysteuSerProP   :   :  :  :  :	roMetheuleunys 	GluProTyriysThrA 	aValileProlleAsn 	216
	1	STYSOFPTOATGT	hrProArqArgC1y 	Cinasnargserataa 	rg:!eAlatysG!nt.cu 	236
	, t,	GluAshAspThrA   - - - - - - - - - - - - - - - - - -	rqIleIleGluVal HELLIIIIIIIII GAATTATTGAAGTT	LeuCysLysGluffisG 	lucysAsnileAspGlu 	256
	\$ . B	VallysAshVall 	yrPheLysAsnPhe 	CleproPheMetAsnS	ericudiyi.cuValThr 	276
A 42	£774	SerAshGlyteuP 	rogluValdluAsn 	LeuSerlysArgTyrG 	luClulleTyrLeulys 	296
à 5	007 797	AsnLysAspLeuA 	spAlaArqLeuPhe 	LeuAspHisAspLysT                    TTGGATCATGATAAAA	nrLeuglnThrAspser 	316
cy Db	340	HeaspSerPhed	TuThrGInArgThr IIIIIIIIII AAACAGAGAGAAAAA	ProArglysSerAsnia 	euAspGluGluValAsn HTHTHHHHHHHH ITGATGAAGAGTGAAT	336
ž čž	447 82J	ValileProproH 	isThrProValArg 	ThrValMctAsnThrI 	eG nG nLeumetMet 	356
<u> </u>	45.7 3.88	IleLeuAsnSerA	laSerAspGlnPro 	SerGluAsnLeulleSe 	erTyrPheAsnAsnCys 	376 939

on

```
1240 TCTGGAACAGATTGTCTTTCCCATGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGAT 1299
                                                                                                                                                                                                                                                                                                                                                                            1480 ICTGCTTGTCCTCTTAATCTICCTCTCCAGAATAATCACACTGCAGCAGATATGTATCTT 1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1660 TCACTGTTTTATAAAAAAGGTATGGGGTAAGCTAAG TGGGGGTAAATACACTTTGTGAA 1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1780 CTGCAGAATGAGTATGAACTCATGAGAGAGAGGCATTTGGAGGAATTATGATGTGTTCT 1836
                               940 ACAGTGAATCCAAAAGAAAGTATACTGAAAAGGGTGAAGGATATAGGATACATGTTGTTTAAA 999
                                                                                                                       417 LeuGlyValArgLeuTyrTyrArgValMetGluSerMetLeuLysSerGluGluGluArg 436
                                                                                                                                                                                 437 LouSerlleCinAsnPheSerLysLeuleuAsnAspAsnIlePheHisMetSerLeuleu 456
                                                                                                                                                                                                                                           457 AlaCysAlaLeuGluValValMetAlaThrTyrSerArgSerThrSerGluAsuLeuAsp 476
                                                                                                                                                                                                                                                                                                                                                                                                                        517 LysHisLeuGluArgCysGluHisArgIleMetGluSerLeuAlaTrpLeuSerAspSer 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            537 ProLeuPheAspLeuIleLysGlnSerLysAspArqGluGlyProThrAspHisLeuGlu 556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               597 AlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLysProLeuLysSerThrSerLeu 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617 SericuPhoTyrLystysValTyrArgleuAlaTyrlicuArgleuAshrheuCysGlu 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                697 TyrtysAspteuProHisAlaValGlnGluThrFheLysArgValLeuIleLysGluGlu 716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          717 GluTyrAspSerIleIleValPheTyrAsnSerValPheMetGlnArqLeuLysThrAsn 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    737 HeLeuGlnTyrAlaSerThrArgProProThrLeuSerProfleProHisHeProArg 756
SerGlyThrAspLeuSerPheProTrpIleLeuAsnValLeuAsnLeuLysAlaPheAsp
                                                                                                                                                                                                                                                                                                                                                              497 PhoTyntysVallleCluSerFhelldsAlaGluGlyAsnLculhrAngGluMetlle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     577 SerProValArqSerProLysLysClySerThrThrArqValAsnSerThrAlaAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      637 ArgLeuLeuSerGluHisProGluLeuGluHisIleIleTrpThrLeuPheGlnHisThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            657 LeuGinAsnGluTyrGluLeuMetArqAspArqHisLeuAspGlbileMetMetCysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      677 MctTyrOlytteCystysValLysAsntleAspLeutysTheLysTleTleValThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             477
                                                                                                                                        q
---
                            g
                                                                                       qq
                                                                                                                     ά
                                                                                                                                                                                                                                                                 윤
                                                           ĉ
                                                                                                                                                                                 ŏ
                                                                                                                                                                                                            g
                                                                                                                                                                                                                                   0,7
                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           öΣ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ωÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ö.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
```

```
2020 ATTEGRATARCTICAS VAGOCOCTACACATACAANAICACAANAITOCEGA 2079
                                                                                                                                                                                  2080 AGCCCTTACAAGIITCCTAGITTCACCCTTACGGATTCCTGGAGGAACATCTATATTTCA 2139
                                                                                                                                                                                                                                                                                        2200 ASATCAAGAATGITAGIAICAAIIGGEGAATGATEGGGGGACTICIGAGAAGITEGAGAAA 2259
                                                                                                                                                                                                                                                                                                                                                                                                                           837 ProProLysProLeuLysLysLeuArqPheAspIleGluGlySerAspGluAlaAspGly 856
                                                                                                                                                      777 ProtestysSerProTyttysTleSerGluGlyLeaProThrProThrLysMetThrPro 796
                                                                                                                                                                                                                                             797 ArqserArqIleLewValSerIleGlyGluSerPheGlyThrSerGluLysPheGlnLys 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   857 SertysHisLeuProGlyGluSerLysPheGluGlnLysLeuAlaGluMetThrSerThr 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          877 ArgThrArdMetGlnLysGlndySMetAsnAspSerMetAspThrSerAsnLysGluGlu 896
                                                                 757 SetProTyrLysPheProSerSerProLeuArqfTeProGTyGTyAsnfTeTyrTTeSer 776
                                                                                         TITLE OF INVENTION: MODIFIED RETINOBLASTOMA FUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RECISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: UP, CO, 440, 522
FILING DATE: ZZ Dec-1999
CLASSIFICATION: *Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IHM PC compatible OPERATING SYSTEM: PC-DGS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hu, Shi Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: $12/418-3000
TELEFAX: $12/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROTETINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: «Unknown»
ATTORNEY/AGENT INFOPMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bibler, bayid W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: XII, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zhou, Yumli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            77210-4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 0820029151451A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIAIE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2500 AAA 2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 897 Lys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US 09 469 522 3
                                                                                                                                                                                                 ÷:
                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>``</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
```

```
Ξ
                                                                                                                                                                                                                                                                                                                                                                      142 TyricuThrGinProSerSerSerTleSerThrGiatTeAsnSerAlabauValt.cut.ys 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     247 GTTTCTTGGATCACATTTTTATTAGCTAAAGGGAAGTATTAGAAATGGAAGATGATCTG 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             262 PhotysAsserbelleProPhoMetAsinSerlanGlyJosValThrScrAsioNyLaurio 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              607 GAGGTTGAAAATCTTTCLAAAGGALACGAAGAAATTTALCTTAAAAATAAAGALCTAGAT 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      222 ProArgargalyalnasnargScralaArgilcalatysalntanaluasuAspihrarg 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        302 AlaArqLeuPheLeuAspHisAspLysThrLeuGluThrAspSerfleAspGerfheGlu 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              322 ThrGInArdThrProArdJySSerAsnLeuAspGluGluValAsnVallleProProHis 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 ATGTGGTTGACTTTTACTGAGCTACAGAAAAACATAGAAAATCAGGTGCGATAAATTCTTT 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  102 AsnteutentysGlutleAspThrSerThttysValAspAsnAlaMetSerArgtenteu
                                                                                                                                                                                                                                                                                                  82 MetSerPhethrPhethrStutenGlnfysAsnileGtalleSerValHistysthePhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               202 MetheuteulysGluProTyrtysThrAlaValHeProHeAsnGlySerProArqThr
                                                                                                                                                                                                                                                                                                                Conservative:
Mismatches:
                                                                                                                                                                                                                                                                         US-09-026-459A-41 (1-897) x US-09 469-522-3 (1 3218)
                                                                                                                                                                                           Matches:
                                                                                                                                                                             Length:
                                                                                                                                                                                                                                 Indels:
                                                                                                                                                                                                                                                   School
                                                                                                                      SEQUENCE DESCRIPTION: SEQ 1D No:
              SEQUENCE CHARACTERISTICS:
LENGTH: 3218 base pairs
                                         TYPE: nucleic acid
STRANDEDNESS: single
INFORMATION FOR SEQ ID No: 3:
                                                                                                                                                                                                      100.00%
100.00%
                                                                                                                                                                                           4192.00
                                                                      ToPoLoGY: linear
                                                                                              NAME/KEY: CDS
                                                                                                              LOCALION:
                                                                                                                                                                                                                     Hest Local Similarity:
                                                                                                                                                                                                        Percent Similarity:
                                                                                                                                                                Alignment Scores:
                                                                                 FEATURE
                                                                                                                                    US-09-469-522:3
                                                                                                                                                                                                                                 Query Match:
                                                                                                                                                                             Pred. No.:
                                                                                                                                                                                           Score:
                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                ć
                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            П
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :.
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>2</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
```

12 Threprov 12 Threprov 13 Actocod 14 (11111) 13 Actocod 14 (11111) 13 Actocod 15 (11111) 15 (11111) 16 (11111) 17 (11111) 18 (11111) 18 (11111) 19 (1111) 19 (1111) 19 (1111) 19 (11111) 1	ASOTHETHEGINGINLEUMELMETITELEUASUSEERIA 36		laPheAsp 	nHisthra ICACACIG ICACACIG ITERATAV ICACACIG ILYSPICIT ICACACIGIT ICACACACIGIT ICACACACIGIT ICACACACIGIT ICACACACACACACACACACACACACACACACACACACA	### ##################################
그루 위 후 통 후 시 뉴 게 걸 걸 통 등 휴 후 목 입 값 첫 값 및 값 본 값 복 중 값 을 것 없 것 못 볼 살 뿐 뿐 없.	The Proval Acquired	11111111111111111111111111111111111111	### SerPheProTrp11eleuAsn/ 	2. AshleuProleu 1. [111] 1. Prolycyalys 2. Prolycyalys 1. [111] 1. CCAACAAAAA 2. Thrsaralapha 2. Thrsaralapha 3. Thrsaralapha 3. Thrsaralapha 3. Accroascerto 3. Accroascerto 3. Accroascerto 3. Accroascerto 4. Accroascerto	

```
2107 TATAAAATTTCAGAAAGGTCTGGCAACACGCAACAAAAAGGAACGCCAAGATCAAGAAGGTTA 2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1927 ATAGTATTCTATAACTCGGTCTTCALGCAGAGACTGAAAACAAATATTTGGAGTATGCT 1986
                                                                                                                                                            782 TyrtysileSerGlaGlyteuPreThrPreThrtysMetThrProArdSerArgileLeu 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P42 TystystonangbboAspilotlatiatisterasptiaAlaAsptigertysHistonpro 861
                                                                                                                                                                                                                                                                                                                                                                                                                         822 CysAsnSerAspArqValLeuLysArgSerAlaGluClySerAsnProProLysProLeu 841
                                                                                                                                          742 SerthrArgProProThrLeuSerProlleProBislleProAigSerProlyrLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION, MODIFIED RETINGBLASIONA TURGE SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2407 AACOAGAAAATSAATSATAGATSGATAGSTAGSSTAGSTAGGAAGAAGAAGAAA 2151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                882 LysGlnLysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08/45/460, 923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER, IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09,026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 22-Dec-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 36, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. Box 4433
CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DAFA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AFF LICATION NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : Patent No. USZÜÜZÜIS1461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STAIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-09-469-522-36
                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                        :~
                                                                                                         qq
                                                                                                                                                                           90
                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
```

NAME: Hibler, David W.

```
217 (31) yserproArqThrProArqArqGlyGlnAsnArqSerAlaArqTleAlaLysGlnLeu 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27? SerAsoflyLeutroflaValGlaAsifleuSerLySArgTyrGlaGlaffeTyrLeaLyS 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           117 MetSerArglenlanlyStysTyrAspVallenPheAlaLenPheSerTySLeuGluArg 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            137 ThroyschulenfleTyrLeuThrGluProSerSerSerIleSerThrGluIleAsnSer 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67 APATOTGAAPITALATITGAGAGAAGGGAGTIGGATATGTACTGAAATAAATTGT 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetGluAspAspLeuVallleSerPheGlnLeuMetLeuCysValLeuAspTyrPhelle 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197 LysteaserProProMerteatysslaproTyrLysThrAlaVall10eProLleAsn 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THEFTER THE FIRST CONTROLLED FOR THE STANDARD AND THE STA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      407 GGTTGACCTCGAACACCGAGGGGAAGTCAGAACHGCACGGATACGAAAAAAAATA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         237 ChuashaspthraidhleiledholmVallenCystysCluBischuCysashileAspGlu 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       277 VallysAsuValTyrPheLysAsuPheTleProPheMetAsuSetLeuGlyLeuValThr 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                487 TOTAATGGAOTTOOAGAGGITGAAAATCTTTOTAAAGGATAGGAAGAAATTAATCTTAAA 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       297 ASBL/7SASpt.cuASpAlaArqCeuPhet.cuAspHisAspLySThrt.cuClnThrAspSer 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31/ HeAspSerPheGluThiGlnArgThrProArgLysSerAsnLeuAspGluGluValAsn 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        607 ATAGACAGITITGAAACACAGAGAAGACAGGAAAAAGTAAGCTTGATGAAGAGGTGAAT 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09 026 459A:41 (1 897) x US:09:469:522:36 (1:3113)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches:
                      REFERENCE/PROPERT NUMBER: UTX0;506
TELECOMMUNICATION INFORMATION;
TELEFRANE: 512/4/18 8000
TELEFRANE: 512/4/74-5777
THEFERANE: 512/4/74-5777
INFORMATION FOR SEQ ID NO: 36;
SEQUENCE CHARACTERISTICS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO: 35:
PETISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                            LENGTH: 4114 base pairs
                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                               IYPE: number and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4017,00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.008
                                                                                                                                                                                                                                                                                                                                                                                                                                      ToPoloGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCAL PON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME, TK F.T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aliquidad Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98 775 494 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \hat{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ť
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
```

```
1027 GCGIGCGCICIIGAGGIIGIAAIGGCCACAIAIAG AGAAGIACAICTEAAI 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1267 CCTTTATTTGATCTTATTAAACAATCAAAGGACCGAGAAGGACCAACTGATCAACTTGAA 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1387 TCTCCTGTAAGATCTCCAAAGAAAAAGGTTCAACTACGCGTGTAAATTCTACTCCAAAT 1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1687 ATGTATGGCATATGCAAAGTGAAGAATATAGACCITTAAATFCAAAAATCATTGTAACAGA 1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1627 Cremadaatgagialgaamigagagagagagatilegaggaaaltalgalgilem 1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617 SerLeuPheTyrLysLysValTyrArqLeuAldTyrLeuArqLeuAsuThi Leucysclu 646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    537 ProteuPheAspleulletysClnSerlysAspAraGlu@tyProthrAspHistaudlu 556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               557 serAlaCysProLeuAsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyiLeu 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          597 AladluThrClnAlaThrScrAlaPhcGlnThrGlnLysProLcutysScrThrScrLcu 616
                                                                                                                                                                                                                                                                                                                                                                                                          497 GlutysPheAlaLysAlaValGlyGlnGlyCysValGlutleGlySerGlnArglyrtys 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        417 LouGlyValArgLouTyrlyrArdValMetGluSerMetLouLysSerGluGluGluArg 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      457 AlacysAlai.cuGluValValWetAlaihrTyrSerArgSerThrSerGluAshLeuAsp 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   477 SetClyThrAsplouSerPheProTrpHeLenaShValLenAshLentysAlaPheAsp 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            497 PheTyrLysVallleGluSerPheIleLysAlaGluGlyAsmLeuThrArgGluMetIle 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              517 EysHisLeuGluArgCysGluHisArgTleMetGluSerLeuAlalrpleuser AspSer 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 657 LeuglnAsnGluTyrGluLeuMetArqAspAruHislamaSpGln.LemetMeteGys3en - 676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              677 MetTyrdlylleCyoLysValLysAsnileAspheshysPhetysTheTheValThrAla 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           697 TyrlysAspheuProHisAlaValGlnGluthrPhetysArqValLeufletysGluGlu 716
667 GTAATTCCTCCACACTCCAGTTAGGACTGTTATGAACACTATCGAACAATTAATGATG 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     437 LeuSerileGinAsnPheSerlysLeuLeuAsnAspAsnilePheHisMetSerleuLeu 456
                                                                            357 HeleudsinSeraldserAspGlinProSerGludsinLeutherGrifthHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHillerHille
                                                                                                                                                                                                                                 377 ThrValAsaProLysCluSerlleLeuLysAraValLysAsplledlyTyrlletheLys
                                                                                                                                                             7.27 ATTITAAAFFCAGGAAGLGATCAACTICAGAAALCIGALLICCIALLILAAGAACTGC
                                                                                                                                                                                                                                                                                                                          787 ACACTGAALCCAAAAGAAACTALACTGAAAAGAGTGAAAGATATAGGATATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             577 SerProValArgSerProLysLysClySerUhr1hrArqValAsnSerUhrAlaAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                 43
                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ç.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
```

```
1927 AGCCCTIACAASTITCCTAGTICACCTIACGGATICCIGGAGGAACATCTATATITCA 1986
                                                                           8.7 HeAsnalnMetValCysAsnSerAspArqValleuLysArqSerAlaGluGlySerAsn 836
                                     737 IleLeuGlnTyrAlaSerThrArqProProThrLeuSerProIleProHisIleProArg 756
                                                                                                                                                        797 ArgserArgile!euValSerIleSlySluSerPheGlyThrSerGluLySPheGlaLys 816
717 GluTyrAspSerIleileValPheTyrAsnSerValPheMetGluArgLeuLysThrAsn 736
                                                                                                                                                                                                                                                                                                                                                         447 Lys 897
                                                                                                                                                        ŝ
                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                           ŝ
```

Search completed: January 19, 2003, 05:41:51 Job time : 157.48 secs

```
Copyright (c) 1994 - 2003 Compagen Lid.

OM nucleic nucleic scarch, using sw model
Fourier: January 16, 2004, 15:20:22 : Scarch time 91.4372 Seconds
[6420.74] Million cell updates/seconds
[6420.74] Million cell updates/seconds
[6447]
Forteet score: 447
Fortier score: 447
Fortier score: 1 conditional algorithments
[6420.74] Million cell updates/seconds
[6470.74] Million cell updates/seconds
[6470.74] Fortier score: 1 conditional algorithment of conditional algorithments
[6470.74] Fortier score: 1 conditional algorithment of condi
```

Post processing: Minimum March 0%
Maximum March 100%
Listing lirst 45 summaries
outabase: Published\_Applications\_NA:\*

	Published_Applications_NA:*	<pre>1: /eqn2_6/ptodata/l/pubpna/US07_PUBCOMB.seq:*</pre>	<pre>2: /cqn2_6/ptodata/1/pubpna/PCT_NEW_FUB.seq:*</pre>	4: /cqn2_6/ptodata/1/pubpaa/US06_NEW_PUB_sAq+*	4: /cqu2_6/ptodata/i/pubpna/USD6_PUBCOMB.seq.*	* post dud MdN_2030/babbaa/d/batebold/ * pob./ 13	6: //dow.///prodata/i/pumpma/PCTUS_PUBCOMB.seq:*	7: /cqn2_6/ptodata///pubpna/0508_NEW_PUB.seq:*	* The American American and State of the Control of the Second Se	* . proceeds and was to be a passed and the sent of th	199 John William Indiana, it postposa, the competition Miscordia.	<ul> <li>It is a supplementable of the property of the supplemental interesting and the supplem</li></ul>	12: /cqn2_6/ptodata/1/pubpna/US10_PUBCOMB.scq:*	<pre>14: /CTn2_(/ftendata/?//pubpha/US60_NBW_PUB.seq.*</pre>	14: Andrew Arteredate of April Spring All SSO (PHROME Seed) . *
--	-----------------------------	---	--	--	--	---	--	--	--	--	---	--	---	--	---

Fred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	Sequence 42, App1		-	Sequence 143, App	Sequence 46, Appl				36,		Sequence 34, Appl	Sequence 32, Appl				-	Sequence 7740, Ap	Sequence 3131, Ap	Sequence 19910, A
SUMMARTES	d1	118 - 09 - 469 - 522 - 42	08-09-469-522-50		US 09-954-531 143		08-09-469-522-40	US 09 469 522 48		US-09-469-	US-09-469 522-4	US-09-469-522-44	68-669-469-466-86	US-09-469-522-40		US-09-469-522-48	08-09-866-211-7	US-09-796-692-7740	US-09-864 761-3141	US-09-864 761 19910
	Match Length DB	3347 10	4554 10	4555 10	4819 9	4477 10	4461 10	4424 10	3455 10	4113 10	47IB 10	3266 10	3324 10	149.2	8161 10	3484 10	2995 10	451 9	411 10	129 10
Surery	Match	100.0	93.4	44.4	9.5.4	6.76	6, 74,	91.6	7.06	87.58	87.68	8.4.8	83.8	8.58	3.88	87.0	4:	12.8	4.2	f, ' f
	Score	1147	8.35.8	41.26.B	41.2% B	<b>4</b> 1 1 1	41074	4066.2	4019.8	4000	41)()4)	4,000	4000	4006	7,96,7	2911.4	24.29.2	428	142.2	6.7 [
Result	ž	-	7	~	*7	J.	,	1	x	5		=	1 2	-	1.4	-	16	1.7	Ŧ	-

APPLICANI: XI, HONG JI  BENEGICE XI, WILLIAM F.  LEON, WILLIAM F.  REPORTERS F.  CORRESPONDES: 51  CORRESPONDES: 51  CORRESPONDED: 52  CITY HOUSEON EXACT A 4.4  CONDITIE: 1X  COUNTRY: USA  ZIP 7210-44.4  COMPUTER: TAM FC COMPATIBLE  COMPATIBLE READING FOR FORMATION:  ATTORING AND INDIRECTION  RESISTENCY COMPATIBLE  THISTORY AND THE COMPATION:  ATTORING AND THE COMPATION:  THISTORY SEOUR SEOUR THE STATES:  SEQUENCE CHARACTER STATES:  ATTORY SEOURCE CHARACTER STATES:	RESULT	44.6 1.3 2000 9 US-09-938-842A 4147 44.4 1.3 2000 9 US-09-938-842A 4050 44.2 1.3 1376 10 US-09-070 927A 749	45.4 1.4 515 10 US 09 970 972 5785 45.2 1.4 640581 10 US 09 770 948: 1 44.6 1.3 555 10 US 09-864 761 1238 44.6 1.3 1205 9 US-09-948-8428 5218	35 45 4 1.4 2000 9 0.8 09-986 842A 1014 46 45.8 1.4 431 10 05-09-960 452 5558 37 45.6 1.4 419 10 05-09-960-452 1124A	33	31 47.8 1.4 424 10 US-09-960-452 11218 32 47.6 1.4 411 10 US-09-960-452 14521 33 47.6 1.4 401 10 US-09-960-452 450.3	30 48.4 1.4 513509 4 US-09-754-RS-A B	C 28 48.4 1.4 419 10 US-09-969-373-342 C 29 48.4 1.4 419 10 US-09-969-373-343	48.8 1.5 335913 9 03-09-754 B3.8 2 48.8 1.5 335913 9 03-09-754-85.8 3	51 1.5 3747 12 03 10 025 676 2 49.4 1.5 640681 10 03-09-790-988-1	22 59.4 1.8 324 9 0S-09-796-692-2546 23 51 1.5 3747-10 0S-09-770-657-1	104 3.1 304 10 68.8 2.1 3950 9	3.1 394 10 BS-09-964 B24A 296 2.1 3426 9 18 09-2954 B24 2.1 3426 9 18 09-2954 B24 2.1 3747 10 18 09-796 692 1.5 3747 10 18 09-796 692 1.5 3747 10 18 09-796 692 1.5 3747 10 18 09-796 692 1.5 37513 9 18-09-794 893 1.4 419 10 18-09-969 373 441 1.4 513509 9 18-09-794 894 4 1.4 513509 9 18-09-969 373 441 1.4 30225 10 18-09-969 373 441 1.4 30225 10 18-09-969 374 441 1.4 393 10 18 09-969 374 441 1.4 471 10 18-09-969 374 441 1.4 471 10 18-09-969 375 484 4 1.4 471 10 18-09-969 375 484 4 1.4 471 10 18-09-969 375 598 1.3 1205 9 18-09-96 48-42A 2189 1.3 2000 9 18-09-969 38-42A 2029 1.3 2000 9 18-09-969 38-42A 2189 1.3 2000 9 18-09-969 38-42A 378 1.3 2000 9 18-09-978 484 A2 5218 1.3 2000 9 18-09-978 484 A2 4147 1.3 2000 9 18-09-978 48-44 A 419 1.3 2000 9 18-09-978 484 A 419 1.3 2000 9 18-09-978 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	A C C C C C C C C C C C C C C C C C C C
---	--------	---	--	--	----	--	---------------------------------------	---	---	--	---	-----------------------------------	---	---

```
.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90) GAAAA DAADAGAAPTATTGAAGITPPPPPPPAAGAAPAAGAATGTAATATAGATGAG 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            78.1 AAJAAAGATCTAGATGCAAGATTATTTTTGGATGATGATAAAAGTGTTCGGGGTGATTGT 84.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28. AATAAAGATETAGATGCAAGATTATTTTTGGATCATGATAAAAGTETTCAGACTGATTGT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GAAPOPOGGGGGGGGGGGGPPPPPPPPPPAARAAAAAPPPAGAAGAAGAAGAGGGG 120
                                                                                                                                                                                                                                                                                                                121 Prodoagaecticectetegteage filagifficaacaaacaaaacuda fifthact 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (4) FÖGGAA ICTG FATCTTTATTGCAGGAGTTGAGGTTGAATTGTAGTGAATTGTAATTGTT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          461 GEATTGGTGGTAAAAGTTTGTTGGATCACATTTTTATTAGGTAAAGGGGAAGTATTACAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             461 GCALLEGIGCTAAAAGTTTCTTGGATCACATTTTTTTTTTAGCTAAAGGGGAAGTTTTACAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 A DOGANGA TGA TCATTTCATTTCAGTTAATGC TATGTCCTTGACTATTTTATT 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18] AAACTOTOACCICCCATGTTGCTCAAGAACCATATAAAACAGCTGTTATACCCATTAAT 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60] GAAAATGATAGAAGAATTATTGAAGTTOTOTGTAAAGAAOATGAATGTAATATAGATGAG 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661 GEGAAAAA EGITTATTTCAAAAATT FFATACCTTTATGAATTCTCTTGGACTTGTAACA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     66] GEGAAAAATGTETATETEAAAATETETATAGGTEFETETGAATECTCTEGAGTEGTAAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72] TOTAATGGATTFOOAGAGTFGAAAAFOTTTOTAAAOGAAFOGAAAAAAATTATOTAAA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841 ATAGAGAGITITIGAAACACAGAGAAGACGAGGAAAAAGTAACCITIGATGAAGAGGIGAAT 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90] STAATTOOTGGACACACTGCAGIIAGGACTGTIATGAACACIATGCAACAAITAAIGAIG 960
                                                                                                                                                                                                                                        24.1 PPRINAAASTTTCATCTGTGGATGGAGTATTGGGAGGTTATATTCAAAAGAAAAAGGAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 POGGAGGAGCTGCCTCTCGTCAGGTTTGAAGAAACAGAAGAAGAAGTGTTTTTACT
                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 3347; DH 10; Length 3347; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; indels
                                                                                                                                                                                   0; Mismatches
                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO: 42.
SIRANDEDNESS: single
                                                                        2583
               ToPoLOGY: linear
                                                                                                                                                                  Hest Local Similarity 100.
Matches 3347; Conservative
                                                      SSS
                                                                  LOCALION: 7.
                                                      NAME/KEY
                                                                                                         US O9 469-522-42
                                                                                                                                              Unery Match
                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                  â
                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \bar{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
```

```
1141 CTTGGAGTFFGGTFFGFFFFFGGAGFAAFGGAAFGGATGGTFGGFTTAAAFGGGAAGAAGGG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201 TIAFCCAITCAAAATITTAGCAAAGIFGIGAAIGACAACAITTITGAIAIGIGITTATTS 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1501 CCTTTATTTGATCTTATTAAACAATCAAAGGAGGAGGAGGAGGAGGAAGTGATGATGATGAA 1560
                                                                                                                                                                         1021 ACAGTGAATGGAAAGAAGTALAGTGAAAAGAGTGAAGGALATAGGALAGATGTTLAAA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321 TCTGGAACAGATTTGTCTTTCCCATGGATTGTGAATGTGCTTAATTTAAAAGGGTTTGAI 1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1681 GCAGAGACACAAGCAACCTCAGGGTTTGAGGGGGAGGGGATTGAATGTACCTCTCTT 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1241 TCACTGTTTTATAAAAAAGGGGTAGGGGTATCTGGGGGTAAATACTGGGGGTAAATACGGGGTAAATACGAA 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1741 TCACTGTTTTATAAAAAAGIGTATCGGCTAGCCTALCTCCGGCTAAATACACTTTGTGAA 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1801 GGGCTTGTGTGTGTGAGGACCCASAATTAGAAAATATATCTGGACCCTTTTGCAACAAAAA 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1921 AIGIATGGCAIAIGCAAAGIGAAGAAIAIAGACCIIAAAIICAAAAICAIIGIAACAGCA 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1261 GOGIGCGCTCTIGAGGITGIAAIGGCCACAIAIAGCAGAAGIACAICTCAGAAICIIGAI 1320
961 ATTTTAAATTGAGGAAGIGALGAAGGLIGAGAAAATGTGATTTCCTATTILAAGAAGLG
                                                                                                                          941 ATTTTAAATTOAGTAAGGATGAAGOTTGAGAAAATGTGATTTGGGTATTTTAAGAAGTGC
                                                                                                                                                                                                                           1081 GAGAAATTTGCTAAAGCTGTGGGACAGGGTTGTGTCGAAATTGGATCACAGGGATACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1381 TTTTACAAAGTGATGGAAAGTTTTATCAAAGGAAAGGCAACTTGACAAGAGAATGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1561 TCTGCTTGTCCTCTAATCTTCCTCTCCCAGAA1AA1CACACTGCAGCAGATATGTATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1561 HONGO KÖRÜLENANON ÖZHÜĞ KÜLÜĞAĞAALAALCACACACACACAGATATGIALMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1621 TCTCCTGTAAGAICTCCAAAGAAAAAGGIICAACTAGGGGTGTAAATTCTACTGCAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1861 CTGCAGAATGAGTATGAACTCATGAGAGAGAGATTTGGACGAAATTATGATGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1861 CIGCAGAATGAGTATGAAGTCALGAGAGAGAGAGATTTGGAGCGAAAITATGTGTGTFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1261 GCGIGCGTCTIGAGGIIGIAAIGGCCACAIAIAGGAGAAGIACAICICAGAAICIIGAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCTGGAACAGATITGTGTTTTCCCATGGATTGTGAATGTGCTTAATTTAAAAAGCCTTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1621 TETECTATAAGA PELECAAAGAAAGAGITEGAAGIAGGGGIGTAAATTETACTGGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1801 GGCTTCTGTCTGAGCACCAGAATIAGAACATATCATCTGTGTGTGTTTTCCAGCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
                          ģ
                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
2101 ALLEGRATALGMETECACHAGGAGGMETETTGECAATAGGICAMATITGCEGGA 2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2281 AMATCAMMAHOTTAGTATCAATTGGTGAAHOAFIFOGGGAOFIFOFGAAAGTTGCGAGAA 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2401 CCTCCTAAAACACACTGAAAAAAACTAGGCTTTGATATTGAAGGATCAGATGAAGCAGATGGA 2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2401 CCTCCTAAACCACAAAAAAACTACCCTTTGATATTGAAGGAATCAGAAGGAGCAGATGGA 2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2521 CGAACACAATGCAAAAGCAGAAAATGAATGATAGCATGGATACGTTCAAACAAGGAAGAG 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2521 CGAADACGAATGCAAAAGCAGAAAGGATGATAGCATGGATGGTACCTGAAACAAGGAAGAG 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2641 CAGALGLGACTGLAFAACTLLGCCAGGTTCTGALGGCCACATTTAAFATATCTTCAGGT 2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2701 CITITIGGALAIAAAATGIGCAGAIGGAATITGIIIGGGIGAIIGGIAAIGGIAAGGCACIIGAA 2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2761 ATGITAGITCALIGITATITALACAAGALIGAAAATCITGIGAAAATCOTGCCALITAAAA 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PHILLEH HILLEH H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2821 ACLICTACCAGATICTITCCITICCAAAGTAAAATICCTCTCCTTTAIGGATACTAAGA 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2821 AGTIGTAGGAGATIGITICCICITICCAAAGIAAAATIGCIGTGTGATTATGGATAGTAAGA 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2881 ATGGCCTAGAGTGGAATGCTGATAACCTAGGCTGTCTGACTTGCCTTCTTTTG 2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HITTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELlettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2941 TAGGATATAGGTGTTFGCTGTTGTTTTATTAATTTATATGIATATTTTTAATTT 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8001 AAMATGAAMAGCH FAGAAAA GHCHCHCHAFCFFCCAAATGCAAFHIGAAFTGACHG 3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4061 CCCATTCACCAAAATTATCCCCAAAAATCCTCCAAAAATGGAATATTATTAGAAATTAGAA 3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2161 AGCCCTFACAAGTTTCCTAGFFCACCCTFACGGATTCCTGGAGGGAACATCTATATTTCA 2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2461 AGTAAAPATCTCCCAGGAGAGTCCAAATTTCAGGAGAAGTGGGAGAAATGACTTCTACT 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ť
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \frac{2}{3}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ì
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
```

```
3121 AAAAATTACTAATTTIACACATTAGATTTIATTTIACTATIGGAATCTGATAIACTGTT 3180
                                                                                                                                                                                3241 TGATACTATCATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGAT 3300
                                           3121 AAAAATTACTAATTTTACACATTAGATTTTATTTACTATTGGAATCTGATATACTGTGTGT 1180
                                                                                                                                                                                                                                 4241 TGATACTATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGAT 3400
                                                                                         3181 GCTTGTTTTATAAAATITTGCTTTTAATIAAATAAAAGCTGGAAGCAAAGTATAAACATA
                                                                                                                                     3181 GCTTGTTTTATAAAA11TTGCTTTTAATTAAATAAAAGCTGGAAGCAAAGTATAAACATA
                                                                                                                                                                                                           TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93.4%; Score 4126.8; DB 10; Length 4554; 94.1%; Pred. No. 0;
                                                                                                                                                                                                                                                                          3301 TATTTTTTTTCATCCAACTTALGTTTTTAAALGAGGATLALLGALAGI 3447
                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: < Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC DAS/MS-DAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SHQUENCE DESCRIPTION: SEQ ID NO: 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                         55/53463522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    512/418 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGIH: 3554 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: P.O. BOX 4434
CITY: Bouston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Hibler, David W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: 7.,2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Xu, Hond Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 50, Application 53
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 3345;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
    ć
                                           qq
                                                                                           Ś
                                                                                                                                     2
                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                 <u>a</u>
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                     Ω
```

ò

933	4 AAAASTAACCTEGAAGAAGAGGTGAAGGTGAATTCCTCCACACACTCCCCGGTTAGGACTGTT	× 7	
873 1080	4 PATGATAAAN TOTTONGACTGATTOTATAGACAGTTTTGAAACACAGAGAACACCAGA THEFTHILLIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	102	·
- 0	4 AAACGALACGAAGAATTTATCTTAAAAATAAAGATCTAGATGCGAAGAYYATYTTTG 31-13 FELLELELELELELELELELELELELELELELELELELE	75,	5- 2
753 960 .			Se .5
693 900	<del></del>		54 5
633 840	4 AGGAGIGGACGGATAGCAAAACAACTAGAAATGATACAAGAATTATTGAGTTGTGTGTG		te o
573 780			> =
513 720	4 AIGCTAFGIGCCIIGACIATITATIAAACICCIGACCAGIGIIGGECAAAGAACAACA IIIIIIIIIIIIIIIIIIIIIIIIIII		> 2
453 660	4 Frilagetaaaggeaagtattacaaategaagatgatetetetetata.   Hillililililililililililililililililili		:~ £
393	2AICIACTGAAATAAATTCTGCAITGGTGCTAAAAGIIICTTGGATCACAITT 1		>- <u>-</u> Ω
540	1 IIISCACICICAGCAAATIGGAAAGGACATGTGAACTTATATATTIGACACAGCAGC		a
341	2		· >-
341	2		254
420	- GAGCTACAGAAAAACATAGAAATCAGTGTGCATAAATTCTTTAAGTTACTAAAAGAAATT		ے ۔
341			>-
341 360	TGGGGAATCTGTATCTTATTGCAGCAGTTGACCTAGTCGA		> a
300	GAGAAATTICAPCTGIGAACGAGTAPGGAGPPATATTCAAAAAAAAAAGAACTG 		٠. ــــــ
240 240	1 GTATTATGTCAGAAATTAAAGATACCAGATCATGTCAGAAGAGAGCTTGGTTAACTTGG 		:- <u>-:</u>
180	1 - NOSASSAGACOTOTOTOTOTOTOTOTOTAS ASSAGAAGAAGAAGAAGATITACT		> a
120 120	AAACCCCGGCA-CGCCCCCCCCCCCCCCCCCCGAGAGCCCAGAGCAGCAGCGGCCCCCC		> 4
50	. (111.11111111111111111111111111111111		40

```
HELLELLITTELLITTELLITTELLITTELLITTELLITTELLITTECCATGGATTCTC 1500 AGCAGAAGTTCCCATGGATTCTC 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 994 AATCTGATTTCCTAFTTTAACAACTGCACAGTGAATCCAAAAGAAAGTATACTGAAAAGA 1053
                                                                                                                                                       1054 CHGAAGGAFATAGGAFACATCTTTAAAGAGAAATTTGCFAAAGCFGTGGGACAGGGTTGL 1113
                                                                                                                                                                                                                                                                        1114 GPOGAAATIGGATOAGAGOGATACAAACTIGGAGTIGGGTTGTATIAGGGAGIAA1GGAA 1173
                                                                                                                                                                                                                                                                                              1174 TCCATGCTTAAATCAGAAGAAGGATTATCCATTCAAAATTTTAGCAAACTTCTGAAT 1233
                                                                                                                                                                                                                                                                                                                                                                          1234 GACAACATTTTTCATATCTCTTTTATTGGCGTGCGTCTTGAGGTTGTAALGGCCAATAL 1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1441 GACAACATTTTTCATATGTCTTTATTGGCGTGGGCTTTGAGGTTGTAATGGCCACATAT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1294 AGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTCCCATGGATTCTG 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1414 GAAGGCAACTTGACAAGAGAATGATAAAACATTTYAGAACGATGTGAAATTGGAATCATG 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1474 GAATCCCYTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTAAACAATCAAAGGAC 1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1534 GGAGAAGGAACGAACIGAIGAAGIIGAAIGIGCIGCIGTIAAIGTIGCTGTGCAGAAT 1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1654 ACTRACGCCTGTAAATTCTACTGCAAATGCAGAGCAACCAGCAACCTCAGCCTTTCCAGACC 1713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1861 ACTACGCGTGTAAATICTACIGCAAATGCAGAGGAGGAAGGAAGCTGAGGGTTGCAGAGT 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1774 TATCTCCGGGTTAAATACACTTTGTGAACGCGTTGTGTCTGGAGGACCAGAAIIAGAAGAL 1833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1894 CALTIGGACCAAAITALGAIGIFCCAIGTATGGCAIAIGCAAAGTGAAAAAAAAAA 1953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2101 CATTIGGACCAAATTAIGAIGTIGGATGTAIGGTAIGGAAAAGTGAAGAIAIAGAG 2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1954 CHTAAAFTECAAAATÇAFTGTAAÇAQÇAFAÇAAGQATÇTTGETÇATGÇTGTTTAGGAGACA 2013
1081 AAAAGTAACCTIGAIGAAGAGGIGAATGIAAITCCIGCAGACACIGCAGIIAGGACIGII 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1354 AATGTGCTTAATTIAAAAGCCTTTGAITITTACAAAGTGAICGAAAGTTTTAICAAAGCA 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1714 CAGAAGCCAITGAAA1CTACCTCTCTTTCACTSTTTTATAAAAAGTGTATGGGCTAGCC 1773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   934 ATGAACACTATCCAACAATTAATGATGATTTTTAAATTCAGCAAGTGATCAACCTTPAGAA 993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                   G
                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      먑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                 ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

					,		
2280 2280 2133 2340 2193 2400		2580 2433 2640 2493 2700		2673 2880 2733 2940	2793° 3000 2853 3060	2913 3120 2973 3180	3043 3240 3093 3300
TICAAACGUGH UGA GAAAGAAGAGAGA BUGA HUTATTATAGTA HUTATTATAACTUG TICAAACGUGTT TUGATCAAAGAAGAGAGA TAGAATGTATATATATATATATATATA	ALICT DEADEACA ALCIA LA HITCAPOCCIGA GAGICCA FATA AAAA HITCAGAAGGT AACOAAA AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	HENDDAY LICTGAGAACH DEAGAAA LAAGEGGTTGETATGTAGGGGGGGGTTGTGTGTAGGGTTGTGTGTG	CAGAAACTGGCAGAAATGACTECTACTEGAACACGAATGCAAAAGCAGAAATGAATGAT H H H H H H H H H H H H H H H H H H H	GLAVACTOTGGAFTCATIGLOTOTCACAGAIGTGACIGTATAACTTTCCCAGGTTCTGT GLACACTOTGGAFTCATTGTCTCTCACAGAIGTGACTGTATAACTTTCCCAGGTTCTGT GLACACTOTGGAFTCATTGTCTCTCCACAGAIGTGACAACTTTCCCAGGTTCTGT TAATGACCACATTAAAAACTTCAGCTCTTTTGTGGAAAAAAAA	GTTPOBERMETTETTTETTTETTTETTTETTTETTTETTTETTTET	AATBOTGEGTTTATGGATAAJAAGAATGGCGTAGAGTGGGAGTGCTGATAACCCAGG HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	TAATHTATATOLATATITTHTAATTAACATGAACACCCTTAGAAATGTGTGCTATCTTAATTTTHTTTTTTTTTT
2014 2221 2074 2281 2184 2381	15 to	2521 2374 2581 2434 2641		2614 2821 267 <b>4</b> 2881	2734 2941 2794 3001	2854 4051 2914 4121	2974 3181 3034 3241
5 2 5 2 5 2	5 2 5 2 5	4 3 5 5 E	5 2 5 3	\$ £ \$ £	5 8 5 8	3 8 3 8	5 2 5 3

```
3094 AAAAATGGAFATTAFTAGAAATTAGAAAAATTACTAATTTTAFT 4154
                                  3301 AAAAATGGATATTATTAGAAATTAGAAAAAAAAAATTAGTAATTTTAGACATTAGATTTTATT 3360
                                                                         3274 CCTCAGAATGTAAAAGAACTTACTGALLALTILCTLCATCCAACTLATGITTITAAALGA 3333
                                                                                                                                                                                                                                                       3214 AAAAGCTGGAAGCAAAGTATAACCATATGATACTATGATACTAGTGAAACAGATTTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: MODIFIED RELINOBLASIONA FUNDER SUFFRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93.48; Score 3126.8; DB 10; Length 3555; 94.18; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.40
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER UTXC:506
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. ();
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 7..2790
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                              // Sequence 1, Application US/09469522
// Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 3555 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: <Unknown/
ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: P.O. BOX 4434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 77210-4433
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                              4334 GGATTATTGATAGT 3447
                                                                                                                                                                                                                                                                                                                                                 3541 GGATHAFTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Hest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
                                    ad
                                                                             ŝ
                                                                                                                 <u>a</u>
                                                                                                                                                        ĉ
                                                                                                                                                                                          ca
Ci
                                                                                                                                                                                                                                   ć
                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                            ć
```

0.000 CTCTATGCTCTATATCCTCTATATCTTTTTTTTTTTTTT	9779000000	PAGSACAGGGC 120 	ACTGATTTTACT 180	TGSTTAACTTG 240	AAAAAGAACTG 300 	TTCACTTTTACT 360	341	E4 C1	m ·	ნ 4 დ 1 დ	ACACACCAGC 540	co s	TGGATCACATTT 600	اعا اعا	CTCAAAGAACCA 513 	09A3GTCAGAAC 573 	GAAGTTCTCT 633 	AATITIATACCI 693 	GAAAATCTTCT 753 	TTATTTTTGGAT 813 	MAAN'AN'AN'AN 873
1   1   1   1   1   1   1   1   1   1	COTOTOTAAAAADSEDEROAQAOSTOS HTTLITITITITITITITITITITITITITITITITITIT	OGCGGGGGTTOPTAAGAGGAGGAGGAAG 	FCAGGCTTGAAGTTTGAAGAAAAAAAAAAAAAAAAAAAAA	NGATACAGATGE NGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGA	ATGGAGTAPTGGGAGGTTAFAFAFGAAAG 	TTGGAGGAGTTGACCTAGTCGA 		AAATCAGTGTGCATAAATTGTTTAAGTTA		ATAATGGTATGTQAAGAQTGTTGAAGAAG	FGGAAAGGACATGTGAACTTATATATFFF	TAAATTCTGCATTGGTGCTAAAAGTTTCT	IAAAIICIGCAIIGGIGCIAAAAGILICI FALTACAAAHGGAAGAHGAICIGGIGAHH		ATTTATTAAACTCTCACCTCCCAGTTG 	**************************************	AACAACTAGAAAATGATACAAGAATTATT 	IAGATGAGGTGAAAAATGTTTATTTCAAA 	TTGTAACATCTAAFGGACTTCCAGAGGTT 	ATCTTAAAAATAAAGATCTAGATGCAAGA 	CATGATAAAACTETTEAGACTGATTETTATAGACAGTTTTGGAAACACAGGAACACAGGAACACAGGAACACAGGAACACAGGAACACAGGAACACAGGAACACAGGAACACAGGAACACAGGAACAGAACAAC
5 	GGGGTCATGCCGCCCAAAA 	GAAGCCCGGCACCGCCGC TITTITITITITITI GAACCCCGGGCACGCGGC	0066A66ACTGCTTCA) {	GCATTATGTCAGAAATIAA/ 	GAGAAAGTETCATCTGTGG 	TGGGGAATCTGTATCTITA) 		GAGCTACAGAAAAAAATATAG		GATACCAGTACCAAAGTTG	TITCACICITICAGCAAATT	ATCTACTGAAAT	NOT LUCATATO INCLEANATE	TTATTAGCTAAAGGGGAAAG	ATGCTATGTGTCCTTGACTA	TATAAAACAGCTGTTATACC 	AGGAG FGPACGGATAGGAAA  - - - - - - - - - - - - - - - - - -	AAAGAACAIGAATGTAATAI !	IIIAIGAATTOTOTIGGAOT 	AAACGATACGAAGAAATITIA 	CATGATAAAACTCTTCAGAC
		61	121	181	241	301 301	142	196	747	421	481	142	# 3° 0 °	601	454 661	514	574 781	6.4 <b>4</b> 8.4.1	69 <b>4</b> 901	754	

5 3	1954	CTTAAATTCAAAA KATBITATAA'AACATACAABAACTTCCTCATGCTGTTCAGGAGAA 	2013 2220
5 3	2014	TICAAACHGITHGATCAAAGAGGGGTATGATGTATTATAGTATGTATAAACTGGTTTTTTTT	2073 2280
5 E	2074	GPT FCA FONANACEGAAAAAAAA ATTI ONAGTA EGOTTI CACACAGOCCOCTACO TTI TTI TTI TTI TTI TTI TTI TTI TTI TTI	2133 2340
5 £	2134	TIGHCARGAATACGEGACATTCGEGAAGCCTTACAAABTTGCTAGTRGACGGTTACAGGGGTTTTTTTTTTTTTTTTT	2193 2400
5 3	2194	< -<	2253 2460
5 2	2254	PERCANACAACAAAAEGACEGAAGAEEEEEEEEEEEEEEEEEE	2313 2520,
5 E	25.21	TIP BEANT HET BASANTEC ASANANIAAN PARTIGINA FEDANIA BEGACOGOGOTOTO THE HELLER BANDON TIPER BASANDER HER BANDA BAN	2580
5 5	2581	CHCAAAAGAACHSTIGAAGGAACAACCHCTIAAAGCACHGAAAAACHACGCHTGATTITT ETELETETETETETETETETETETETETETETETETE	24
5 G	24.84	(1 (2	2493 2700
5 £	2494	CAGAAACEGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAGCAGAAAATGAATG	2553 2760
75 136	2554 2761	AUPATORATACHTAAAPAAGAAAGAAATGAGATCTCAGGACCTTGGTGGACGCGCTTTTTTTT	2613 2820
7. G	26.14	GTANAPOTOTOGALICALINIOTOTOGAGA BELGACIGTATAACH TIGGGAGGETOTOT FELFIELE FELFELLE FELFEN FELFEN FELFEN FELFEN FELFEN FELFE GLANAGOTOTOGA HIGAETIG FENTGAGAGATGTGAG GTANAACHTIGGGAGGETOTOT	2673 2880
\$ 3	2674	Traissecrathtratarcticascrettttstssataraaatstssatttillii 	2733 2940
5 3	2734	CCTAAGCCACTIGAAAFGE LEETTELLITETTETTE CCTAAGCCACTIGAAAIGI	2793 3000
5 G	2734 500 l	ALTHURICIAAALOTIGOTALII TITTITITITITITITITITITI ALTHURICIAAALOGIGOTALII	2853 3060
5 G	285 <b>4</b> 306.1	AATTOCTOTOCTTTATOCATACTAACAATOCCCTAGAGTGGGGGGCCCGATAACCCAGGGGGGGGGG	2913 3120
5 £	2914	CCFGTCTGACTACT [11]1[]1[]1[]1 CCTGTCTGACTACT	2973 3180
5 E	2974	IAALITALAIGTALAITITI 	3033 3240
Š	10 14	APCTTCCAAATGCAAFTTGATTGACTGCCCATTCACCAAAATTATCCTGAACTCTTC	. 60

```
APPLICANT: Weaver, Zoe
TITLE OF INVENTION: Process for Identifying Anti-Cancer Therapeutic Agents Using Co
TITLE OF INVENTION: Gene Sets
FILE REFERENCE: 689290-77
CURRENT APPLICATION UMBER: US/09/954,531
CURRENT FILING DATE: 2002-05-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ~
                                                                                                                                                                                                              3274 CCTCAGAALGTAAAAGAACTIACTGATTATTTGTTCAACCTATGTTTTAAATGA 3333
                                                                                                                                                                                                                                                                                                   3481 CCTCAGAATGIAAAAGAACTIACIGATIAITTTTTCTTCAACTIAHDIIITIAAATGA +540
                4241 AICTICCAAATGCAATTIGALIGACOCALICACAAAATIALG DAAM LCIRCLGC 4400
                                                                                   3301 AAAAATGGATATTATTAGAAATTAGAAAAAATTACTAATTTTACACATTAGATTTATT 3360
                                                                                                                      3154 TTACTATTGGAATCTGATATACTGTGTGTTTTATAAAATTTTGGTTTTAAAAT 4213
                                                                                                                                                                                           3214 AAAAGGTGGAAGGAAAGTATAACCATATGATACTATCATACTACTAGAAACAGATTFCATA 3273
                                                    3094 AAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTAGAGATTAGTTITATT 3153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62 AACCCCCGCCACCGCCGCCGCCCCCCTGAGGGAACACCAGAGAAAAACACCT21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       253 GGGAGGACCTGCCTCTCGTCAGGCTTGAAGTTTGAAGAACAAGAACCTGATTTTACTG 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               182 CATTALGECAGAAATTAAAGATACCAGALCATAGTCAGAGAGGGTTGGTTAACTTGGG 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels 207; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94.4%; Score 4125.8; DB 9; Length 4839;
94.1%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Sequence 143, Application US/09954541
; Patent No. US20020165180A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 1392
SOFTWARE: Patentin Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 3344; Conservative
                                                                                                                                                                                                                                                                                                                                     3334 GGATTATTGATAGT 4347
                                                                                                                                                                                                                                                                                                                                                                        3541 GGATTALTCATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 B 3 G
                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                     ò
                                                                                   qq
                                                                                                                      ò
                                                                                                                                                      급
급
                                                                                                                                                                                               ć
                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                òγ
                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
```

숙 윤	242	WAAABITICATCIGIGAATGGAGTATTGGGAGGTTATATTCAAAAGAAAAG	
:		TO THE PROPERTY OF THE PROPERT	
نِد ج		SOCIATION OF THE PROPERTY OF THE SOCIATION OF THE SOCIATI	
7.7	142	<i>y</i> 8	
÷	Ť	AGAAALCAGTGTCCATAAATTCTTTAACTTACTAAAAGAAATTG 55;	
~	7 4 4		
4	ić b	A SPACE AND A A AND A AND AND AND A SPACE AND A AND AND AND AND AND AND AND AND A	
	342	34	
ينہ	F 4	TIGTACTS TICAGCAAATIGGAAAAGGACAIGTGAACIIATAIAITIGACACAAGCCAG	
> 4	71%	ALCTACTGAAATAAATTCTGCATTGCTGAAAAGTTTCTTGCATCTTTT 39	
- E	, S	TATTARCTAANGGGAAGTATTACAAATGGAAGAAGTTCTT / TATTARCTAAAAGATTCT / TATTARCTAAAGGAAGAAGTATTACAAATGGAAAGATGAAAA 4	
a	733		
÷ ÷	464	DOTALGIGLOCITGACTATTIATTAAACICTCACTCCCATGIIGCTCAAAGAACCAT 5 LOTTE CHELLIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
77.	515	ALAAAA, SACTOTTATACCCATTAATGGTTCACCTCGAACACCCAGGCGAGGTCAGAACA 57	
Ē	853	ATAAAACAGCTGTTATACCGTTAAATGGTTCACCTCGAACAGCCGGGGGGGTCAGAAAA 91	
<u>ج</u> ج	575	GGRGEGCACGGATAGCAAAACAACTAGAAAATGATAGAAGAATTATTGAAGTTCTCTGTA 634 	
÷.	~ .	AAGAACATGAAATATAGATGAGGTGAAAAAGTTTTTGAAAAATTTTATAGCTT 694	
÷	_		
<u>1-</u> -	595	HARGARI POTETTOGAPTTGRAGGETTTCGAGAGGTTGAAAATCTTTCTA 754 HELLELLELLELLELLELLELLELLELLELLELLELLELL	
e =	755	AANGATA GAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTGGATC 81 - HILLELELELELELELELELELELE - AANGA EQGAAGAAATTA ECTTAAAA AAAGATCTAGATGCAAGATTATTGGATC 11	
<u>l</u> ~	£.	ALGALAAAACTICTICATACTICATICTATAGACAGTITTTGAAACACAGAAGACACGGAA 874	
يَ.	~	ABRATANAACTOTTCAAACTSATTCTATASACAGTTTGAAACACAGAAACACACAACAA	
2: 4	10. 10	AAADTAACOTTGALGAAGGLGAATGTAATTCCTCCACACTCCAGTTAGGACTGTTA 934 11 HTHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	
<u> </u>	54.6	TGAACATTATCGAACAATTAATGATGATTTTAAATTCAGCAAGTGATCAACAAA 994	
	4	551 REPORT TO THE PROPERTY OF	
تيہ:	1345	ALCIGALLICCIALLITAACAACTGCACAGTGAATGCAAAAGAAAGTATACTGAAAAGAC LILLILLILLILLILLILLILLILLILLILLILLILLIL	
Ϋ́	1055		
ئ	1343	I GAAGATATAGGATATATATTTAAAGAAATTTTGCTAAAGCTGTGGGACAGGGTTGTG 145	
>.	1115	TCGAAATTGGATCACAGGATACAAACTTGGAGTTCGCTTGTATTACGGAGTAATGGAAT 11	

NAT 1512	ALG 1234    : NTG 1572	NTA 1294           1632	NGA 1354 	7AG 1414 171 3AG 1752	763 1474 11 33 1812	VCC 1534 	VIA 1594 III VIA 1932	AA 1654 11 AA 1992	000 1714 	001 1774 	VIA 1834         2172	367 1894 	CC 1954 	AT 2014	198 2074 11 198 2412	ort 2134 	3GA 2194 11 3GA 2532	TC 2254
	TAGCAAACTICLGA LILLILLILLI TAGCAAACTICIGA	TGTAATGGCCACAT 	THECCAIGGAITC 	AAGTTTTATCAAAG 	TGAACATCGAATCA 	TAAACAATCAAAGG 	TCTTCCTCTCCAGA 	AAAGAAAAAAGGIT 	CTCAGCCITCCAGACCC 1 	AGIGIATOGGGIAG 	CCCAGAATTAGAAC 	ACTCATGAGAGADA 	AGTGAAGAATATAG 	TOCTGTTCAGGAGA 	AGTATECTATAACE 	CACCAGGCCCCCTA 	TAGTICACCCITAC 	TAAAATITCAGAAG
	ATCCATICAAAAHT 	STGCGCTCTTGAGGT 	IGGAACAGAI 11G1C                    IGGAACAGAI 11G1C	TTACAAAGTGATGGA 	ACATITAGAACGATG 	ITTATITGATCITAT 	rderigieeretiaa 	ICCIGIAAGAICICC 	AGAGACACAAGAAAA FILLILIIIIIIIIIII AGAGACACAAGAAA	ACIGITITATAAAAA PITITITATAAAAA	CCTICTGTCTGAGCA 	GCAGAAIGAGIAIGA 	STATGGCATATGCAA 	CAAGGAICITCCICA 	STATGATICTATTAT 	HIGGAGLAIGETIC HILLIIIIIII HIGGAGIAIGETIC	CCCITACAAGITICC 	CCIGAAGAGICCAIA
NCAGCGATACAAACI	AGAAGAAGAACGAIT. 	235 ACAACATTTTTCATATGTCTTTATTGGGGGGGGTCTTGAGGTTGTAATGGGCACATATA 129 	ICAGAAICIIGAIIC 	AAAAGCCTTTGAIITT 	AAGAGAAATGATAAA.                      AAGAGAAATGATAAA.	SCICICAGAIICACC 	PGATCACCTIGAATC 	NGATAIGIAICIIIC 	HCTACTGCAAAIGC HTTIHHHHHH HCTACTGCAAAIGC	ATCTACCTCTC11TC 	PACACTIGIGAACG 	ITTOCAGOACACOCOT 	PATGATGTGTTGGATG 	ATTGTAACAGCATA 	10111111111111111111111111111111111111	ACTGAAAACAAAIAI IIIIIIIIIIII NCTGAAAACAAAIAT	FCACALICCICGAAG FFILLETTILLET FCACATTCCTCGAAG	ATCIATATITCACC
TCGAAATTGGATC	CCATGCTTAAATCA 	ACAACATTTTCA1                        ACAACATTTTTCA1	GCAGAAGIACAIC) 	ATCTCCTTAATTTA 	AAGGCAACTTGAC7 	AATCCCTTGCATGC 	GAGAAGGACCAACI 	ATCACACTGCAGGZ TTTTTTTTTTT ATCACACTGCAGGZ	CTACGCGTGTAAA) 	AGAAGCCATTGAAA [[[[[[]]]]]] AGAAGCCATTGAAA	ATCTCCGGCTAAA1 	TCAICIGGACCTI                   TCAICIGGACCCTI	ATTTGGAGGAAATT 	TIMATICAAAAIC 	TCAAACGTGTTTTO	TCTTCA1GCAGAGA 	TGTCACCAATACCT	TTCCTGGAGGGAAC
1453	1175	1235	1295	1355	1415	1475 1813	1535	1595	1655 1993	1715	1775 2113	1835 2173	1895	1955 2293	2015	2075	2135	2195
â	Qy Db	94 05	9. 0.	Q.y DD	Qy Db	Qy Dp	90 70	Qy Dh	Qy	QY	0y Db	QY	Qy Db	O O	Qy Dp	Qy Db	ÇV	ογ

3335 GATTATTGALAGI 3347

Š

```
2713 FEARMARAGEO DA ARRESTA POR LO SER ARAGO DE CONTRA PORTE DE LA PARAGARACIA CONTRA 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  THEFT HITTER HIT
2533 TECHNOLOGICAM AND A LOTA LA LA LA LA CONTROL CANDA CANDA LA LA CONTROL LA CANDA CANDA
                                                                                                                                                                                                                                                  2255 TGOCAACAACAACAAAAAATGACTCCAAGATCAAGAATGTTAGTATCAATTGGTGAATCAT 2314
                                                                                                                                                                                                                                                                                                                                                                     2.4.75. FCAAAGAAGGTUAAAGAAAAGCAAGCCTGGTAAAGGAATGAAAAAAGTAGGTTTGATA 24.34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24.95 TTGAAGGATCAGATGAAGCAGAAGTAAAGTAAACATGTGGGAGAGAGTGCAAATTTCAGC 24.94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2499 AGAAACH GGCAGAA EGACH LOTACH GGAACACAAAA GCAAAAAGCAGAAAA FGATA 2554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2555 GCATGGATACTCAAACAAGAAGAAATGAGAATCTCAGGACCTTGGTGGACACTGTG 2614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZHY FIGNATIAGATACCI CAAACAACTAGAATAGACTACTCAGGACCI TGGTGGACACTGTG 2952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2615 TACACTCTGGATTCATTGTCTCTCACAGATGTGACTGTAAACTTTCCCAGGTTCTGTT 2674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2675 TATGROAD RADATUL AATATUL DAGGTOTTITIG 160ATALAAAA 1GLGGAGATGCAATTG 2734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2735 TITGGGGGGTGATICCTAAGGCACTFGAAATGTTAGTCATTGTTATTATACAAGATTGAAAA 2794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2795 TOTTGTGTAAATCGTGCCATTTAAAAAGTTGTAGCAGATTGTTTGCTTCCAAAGTAAA 2854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       *144 FULESTGTAAATGGTGGGATTTAAAAAGTTGTAGGAGTTGTTGGTTTGCTGTTGGAAAGTAAA 3192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2855 ATTOTIGIGETTIALGGALAGIAAGATGGGGGTANAQTGGGAGTGGIGATAACCCAGGC 2914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4193 AFTGPTGFTGTTTATGGALAGTAAAAATGGCCCTAGAGTGGGAGGCCTGATAACCCAGGC 3252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2915 CTGTGTGACTTGCCGTCTTTGTAGCATATAGGTGGTTGCTTGTTGTTTATT 2974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2979 ANTITATATATATITITITITAATITAAGATGAAGGCTTAGAAAATGTGTGCCTATCTA 3034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   411 | HILLI 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      334 CHECANAGAN CANTONICALICANICACIONA NO CONTRACIONA 3094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     447.4 TCTTCCAAATGCAATTTGATTGACTGCCCATTCACCAAAATTATCCTGAACTCTTCTGCA 3432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44.4. AAAALGGALALLALLAGAAALLAGAAAAALIACTAALLITAGALLAGALLIGATTT 3492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    493 TACIATEGRAFICEGRIAGISCICCTIGITIATAAATITIGCITITAAITA 3552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4215 AAAWII OOAAGCAAAGTA FAACCA FACTA CA FACTACTAAAACAGA FILOATAC 3274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ت
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \tilde{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
```

```
121 CCGGAGGACCTGCCTCTCTCAGGCTTGAGTTTGAAGAAACAGAAAAACTGATTTTAGT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 GCATTATGTGAGAAATTAAAGATAGGATAATATAAGAGAGAGAGAAAA HOG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                squo, caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 92.9%; Score 411; DB 10; Length 477;
Best Local Similarity 95.9%; Pred, No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENI APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: *Unknown.
                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC COMPATIBLE OPERALING SYSLEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CLS
LOCATION: 7., 2613
SEQUENCE DESCRIPTION: SEQ ID NOT 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                   Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                  Sequence 46, Application US/09469522
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: $12,418-3000
TELEPAX: $12,474-7577
                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 4377 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     < Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                               APPLICANT: Xu, Hong Ji
                                                                                                                                                                                    Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
ZIP: 77210-4433
4673 GATTATTGATAGT 3685
                                                                                                                                                                                                                                                                                                                                                                 CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                  STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                               US-09-469-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-469-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 3237;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ľ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ें
```

Page 10

```
1291 TATAGCAGAAGYACATGTGAGAAFGTFGAFLGTGGAAGAGATFTGTGTTTFGCGALGGALL 135v
                                                          1351 CTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTATCAAA 1410
                                                                                                                                                                                          1411 GCAGAAGGCAACTTGACAAGAGAATGATAAAACATTTAGAAGGATGTGAACALCCAALC 1470
                                                                                                                                                                                                                                                                     1471 ALGGAATICCCTTCGATCGCTCTCAGATTCACCTTTALTTGATCTTTAAACAATCAAAG 1530
                                                                                                                                                                                                                                                                                        1651 TCAACTAGGGGTGTAAATTGTAGTAGAAATGGAGAGAGAAAGGAAGGTGAGGGTTGAAG 1710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1951 GACCTTAAATTGAAAA ICATTGTAAGAGGATGTICCTGTGCTGTTGTGGGGG 2016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2101 TEGGTCTTCATGCAGAGACTGAAAACAAAFAFFTGCAGTGCACCAGGCCCCCC 2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2281 GGYCTGCCAACAACAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAA 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2311 TCATTCGGGACTTCTGAGAAGTTCCAGAAATAAATCAGATGGTAHGTAAFAGFGGCGH 2370
1261 AATGACAACATTTTCATATGTCTTTATTGGCGTGCGCCTCTTGAGGTTGTAATGGCCACA 1328
                                                                                                                                                                                                                               1441 GCAGAAGGCAACTIGACAAGAAAATGATAAAACAIITAGAAGGAIGIGAACAIGGAAIG 1500
                                                                                                                                                                                                                                                                                                                                                 1531 GACCGAGAGGACCAACTGATCACCTTGAATCIGCFFGFCCTTAATCTTCCTCTCAC 1590
                                                                                                                                                                                                                                                                                                                                                                                                                            1591 AATAATCACACTGCAGATATGTATCTTTTCTGTGTAAGATCTCCAAAGAAAAAGGT 1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1621 ANIMATCACACTGCAGCAGATATGTATCTTCTCCTGTAAGATCTCCAAAGAAAAAAGGT 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1711 ACCCAGAAGCCAIIGAAAICTACCICICITICACIGITITAIAAAAAAGIGIAIGGGCIA 1770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1771 GCCTATCFCCGGCTAAATACACFFFGGAACGCCTFCTGTGFGAGCACCCAGAAFFAGAA 1830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1831 CATATCATCTCGACCCTTTTCAGCACACACGCGAGAATGAGTATGAGTGATGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1891 AGGCATTTGGACCAAATTATGATGTGTTCCATGTATGGCATATGCAAAGTGAAGAAATATA 1950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1981 GACCTTAAATTCAAAATCATGTAACAAGATGTACAAGGATGTTCCTCATGCTGTTCAGGAG 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2011 ACATTICAAACGTGTTTTGATCAAAGAAGAGGAGTATGATTGTATTATAGTATTGTALAAC 2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2131 ACCTITGITACTAATACGIIGACAIITCTICGAAGGGGTIAGAAGITTIGCIAGIITGGGGGIIA 2190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2161 ACCITGIORATACTCACALIO PO CARAGO TIANAMILI COLLEGACIOLEA 2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2191 COGATIFOCTIGGAÇGAAÇATÇTAFATITÇAQÇÇTGAAGAÇTÇÇATATAAAALHICAGAA 2250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2251 GGTCTGCCAACAACAAAAAATGACTCCAAGATCAAGAATCTAGTATCAATTGGTGAA 2310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2071 TCGGTCTTCATGCAGAGACTGAAAAAATATTTTGCAGTATGCTTCCACCAGGCCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   습
                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ρp
                                                                                                                                                                                        6
                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 É
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ΩF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
```

```
24.31 GATALLGANGALCAGALGANGAGATGGANTIANANGALGTGGGAGGAGGAGGAGGAGTGGANALTT 2490
                                                                                      24.91 CAGGAGAAACTGGGAGAAATGACTTGTACTGGAACAGGAAATGGAAAAAGAAAAATGAAT 2550
                                                                                                                                                            2551 GATAGMATGGATAMTTMAAMMAAGGAAGGAAHTGAGGATMTGAGGAMTTTGGTGGAGAG 2610
                                                                                                                                                                                                                                 2081 - GATAGCATGGATACCTCAAA,3AAGAAAAATGAAAATGAGGACTCAGGACCTTGGTGGACAC 2640
                                                                                                                                                                                                                                                                                   2611 EGGGACHTGGALICALIGICICICAGAGAIGIGACIGIALAACELIGGCAGGFFG 2670
                                                                                                                                                                                                                                                                                                 26/1 TGTTTATGGGGACATTTAATATCTTCAGGTCTTTTTGTGGATATAAAATGTGCAGATGCA 2730
                                                                                                                                                                                                                                                                                                                                                                         2731 ALIGITIGGGIGALICCIAAGCCACTIGAAALGTTAGTTGTTATTTATAGAAGATTG 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                            2791 AAAATCTTGTGTAAATCCTGCATTTAAAAAGTTGTAGCAGATTCTTTCCTCTTTCCAAAG 2850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2051 TAAAATTGCTGTGTTTATGGATAGTAAGAATGGCCCTAGAGTGGGGGCCTGATAACC 2910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2911 AGMOTOTOTIGATIACTITICCLICTETICIAGGETATAGGEGARGETICETICFETTET 2970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2971 TALTAATTTATATGTGTGTGTTTTAATTGAAGAGGCCTTAGAAAALGTGTGGTA 3030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PTATCTTCTAAATGCAATITGALIGACHGCC AIRCACCAAAAHAACGGGAACICIIC 3090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4151 ATLITACIALEGGAALCEGATALACEGEGGETGHTTAFAAAATTEGGTTTTAATTA 3210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ANTAMARGUTGGAAGGAAGGAATATAAGGATATGATACTAGATACTGAAAGAGAATTG 3270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 330 ALACCICAGAATGTAAAAGAACITACIGAITATTITCITCAICCAACTIATGITITAAA 3360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1991 FGAAAAATGGATAFTAGAAATTAGAAAAATTAGTAAFTTTAGAGATTTT 3150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3300 SALL AATAAAAGCIGGAAGGAAAGTATAAGCATATGATACTATGATACTGAGAAGGATTTG 3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4341 TOAGGALLALLGALAGE 3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3361 TGAGGATTATTGATAGE 3377
                                                                                                   ã
                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                  12
                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <del>-</del>2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
```

```
US 09 469 522 40
: Sequence 40, Application US/09469522
RESHELL 6
```

\_

<u>-</u>

\_

\_

```
61 GAAPCTTGGGGAPPGPGPGPGPPPPPPPPPPGTGAGGAPDGAGAGAGAGAGGCT20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 CCCCAGGACCTGCCTCTCGTCAGCTTTGAGTTTGAAGAAACAGAAGAACTGALLTTACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ----AACTTGGGAGAAAGTTLCATCTGTGGATDGAGTATLAGGA_273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels 114; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zhou, Yurdi
TITLE OF INVENTION: MODIFIED RETINOBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92.98; Score (109; DB 10; Length (461;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: THE PS COMPATIBLE COMPUTER: THE PS COMPATIBLE CONTRAINED SYSTEMS THE CONTRAIN SOFTWARES PARENT APPLICATION TATA: US/09/469,522
FILMS DATH: 22 HOST 1999
CLASSIFICATION: UNKNOWN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0, Mismatches
                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. BOX 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOM/NET NUMBER: ULAC: 508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXCUENCE DESCRIPTION: SEQ ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 41,071
                            APPLICANT: Xu, Hong-Ji
Hu, Shi Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGIH: 3461 base pairs
                                                                                                                      PROLETINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:

    Utaknowna

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SECTION NOT 40: SECUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic arid
                                                                                                                                                                                                                                       COUNTRY: USA
21P: 77210-4444
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 3282; Conservative
                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
; Patent No. US20020151461A1
                                                                                                                                                                                                         CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                   GENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                             SIALE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ω
Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

7

THE THE AAAAGAAAAGGAACTG GGGGAACCACTG ACTG IGAAGAAGGAAAAGGAAAAGGAAAAGGAACTG GGGAACTG GAAGAAGGAAAAGGAACTG GAAGAAGGAACTG GAAAAAGGAAAAGGAAAAAAAAAA	E 4 E 4 4 D		66 72 72 84 87 90	946 960 906 102 966 108	102 114 108 120 114 126	AAATCAGAAGAACGATTATCC 1206
AGACHGHGAAGA  AGACHGHGAAGA  TOTOTAAGACHTH  GATGATATATTT  GATGATATATTTT  GATGATATATTTT  GATGATATATTTT  GATGATATATTTT  GATGATATATTTT  GATGATATATTTT  GATGATATATTTT  GATGATATATTTT  AATGATATATTTC  AATGATATATTTC  AATGATATTTC  AATGATATTTC  AATGATATTTC  AATGATATTTC  AATGATATTTC  AATGATATTTC  AATGATATTTC  AATGATATTTC  AATGATATTC  AATGATATTTC  AATGATATTC  AATGAT				GATTATTTTGGALCATGAVAAACTC GATTATTTTTGGALCATGAVAAACTC AGAGAACTCCGAAAACTAACCTTG THITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	ATCAACTI CAGAAATCTGATTTCCT ATCAACTT CAGAAATCTGATTTCCT ATCAACTT CAGAAATCTGATTTCCT ATTATA TGAAAAGGTGAAGGATATAG ATTATA TGAAAAGGATATAG ATTATA TGAAAAGGATTTTTTTTTT	
	GGTTATATTCAAA AGACTGTTGAAGA GTATCTTTA GAACTTATATTT GGTTAAAAGTTT GTGGTTAAAGTTT	CATCACTOR OF A TOTAL OF THE PROPERTY OF THE PR	CATACAACAATTA  TITTITITI SATACAACAATTA  AATGITTATTICA AATGITTATTICA AATGITTATTICA GGACTTCCAGAGG	CATCHAGATOCAA CATTTAGATOCAA CATTTAGATOCAA ACTTTTAGATOCAC THILLIHIT	AATTCAGCAAGTG AATTCAAAAGAAA AATCCAAAAGAAAA AATCTAAAAAGAAAA AATCTAAAAGAAAA AATTCAAAAGAAAAAGTG HIILIHIHIHIT	3110361161AFF 3110361161AFF ATCAAATTTA ATCAAAATTTA ATCAAAATTTA ATCAAAATTTA ATCAAAATTTA ATCAAAATTTA ATCAAAATTTA ATCAAAATTTA ATCAAAATTTA

λO	1327	ACAGATIGICITICOCAIGGAIICIGAAIGIGCIIAAIIIAAAAGCCIIIGAIIIIAC 13	ω α ~
: <del>Q</del>	1441		500
Οÿ	.1387	AAAGTGATGGAAAGTTTTATCAAAGCNGAAGGAAACTTGACAAGAGAAAATGATAAAACAT 14	44
qu	1501	AAAGTGATCGAAAGTTTTATCAAAGCAGAAGGCAACTTGACAAGAGAAATGATAAAACAT 15	260
ΟŸ	1447	TTAGAACCATCTCAACATCGAATCCTTGCCTTGCATGGCTCLCAGATTCACTTTA 15	506
QD Ph	1561	TIAGAAGGATGTGAAGATGTGAATGTGTGTTTTTTTTTT	079
Qy	1507	TITGAICITAITAAAGAAIGAAAGGACGAGAAAGGACCAAGIGAICAACCIGAAICIGGT 15	566
qq	1621	TTTGATICTTATTAACAATCAAAGGACCGAGACCAACTGATTGTTTTTTTT	089
ς	1567	TGTCCTC11AATCTTCCTCTCCASAATAATCACACAGCAGAGAAAAAAAAAA	97g
QD	1681	TGTCCTCTTAATCTTCCTCTCCCAGAAAAAACACTGCAGCAGCAGAAAAAGTGTTTCTCTCT 17	740
δλ	1627	GTAAGATGTCPAAAQAAAAAAGGTTGAAGTAGGGTGTAAGTGCAAATGTAGTGGAAATGGGAAATGGAAGA 16	989
qq	1741	GTAAGATCTCCAAAGAAAAAAGGTTCAACTACGGTGTAAATTCTACTGGAAATGGAGGAG 18	800
δ	1687	687 ACRCAAGCAAGCTCAAGCTTCCAGAACCCAAGAAGCCATGGAAATCTACCTCTCTTCACTG 174	1746
ga	1081	ACACAAGCAACCTCAGGGTTCCAGAGCCAGAAGCCATTGAAATGTAGCTCTCTTTCAGTG 18	098
ð 1	1747	TTTATAAAAAATTTATGGGTAGCTATCTCCGGCTAAATACACTTGTGACCTT 18	806
g ,	r x	TITITATAAAAANSIBITATSISSI TAGCCTATCTGGGCTAAATACAGTTTGTBAAGGGCTT	025
δλ	1807	CTGTCTGAGAGCAGCCAGAATTAGAAGATATGATGAGGAGCCTTTTCAGGAGACGCAGAGAGAG	866
<u>.</u>	1761	CTSTCTSAVSTACTONSAATTASAACAIATOATOTSSACCTTTTCCASCACACOCTSCAS 19	0.85
ð 1 :	1867	AATGAGTATGAACTCATGAGAGAGATIIGGACCAAATTATGATGTGTCCATGTAT 19	975
gci	186	AATGAGTATGAACICALGAGAGACAGGATTTGGACGAAATTATGATGTGTTGGTTGG	040
ò.	1927	GGCATATGCAAAGTGAAGAATATAGACCTTAAATTCAAAAACATTGTAACAGCATACAAG 19 	986
QQ	2041	GGCATATGCAAAGTGAAGAATATAGACTTTAAATTCAAAATGATTGTAAGAGGCATAGAAG	100
ΟŸ	1987	GATCTTCCTCATGCTGTTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAGAGTAT 20	046
цq	2101	GATCTICCICATGCTGLICAGGGGCALTCAAACGLGIILIGAICAAAGAAGAGGTAT 21	160
Qy	2047	GATTCTATATAGATATICTATAACICGGTCTICAIGCAGAGAGAGAAAAAAAATTTTG 21	106
qq	2161	GATTCTATTATTATTACTATTACTCGCTCTTCATGCAGAGACTGAAAAAAAA	220
QY	2107	CASIAIGUINCACCASGUCCCUIACIIGICACCAAIACUICACAIICOLGGAAGOUI ZI	156
식	1000	PANTATANININANANANANANANANANANANANANANANA	280
QY	2167	PACAAGITITOTTAGTICACCCTTACCATTCCTCGACGCAACATCTATATTTAGCCCTC	955
qq	2281	TACAAGTTTCCTAGTTCACCCTTACGGATTCCTGGAGGGAACATCTATTTCACCCTG 23	340
ζŞ	2227	AAGAGTCCATATAAAATTTCAGAAGGTCTGCCAACAACAAAAAAAA	286
đ	2341	AAGAGTOOTTITTITTITTITTITTITTITTITTITTITTITTIT	400
Oy	2287	AGAATCTTACAATCAATTGGTCAATCATTC3GGAGTTCTGAGAAGTTCTAGAAATAAAT 23	346
qq	2401	AGAATCTTAGTATCAATGGTGAATCATTCGGGACTTCTGAGAAGTTCCAGAAATAAAA 24	460
QY	2347	PAGATGGTATGTATGTAGGGAGGGTGTGTGTGAAAAGAAGGGGGG	406
ď	2461	CHILITETETETETETETETETETETETETETETETETETET	520

```
PERMITTER PROGRAMMENT OF THE PERMITTER O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2947 ALACHIGATCHTIGHTHILALLANTAATTATATATATTTTTAACATG 3006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8067 CACCAAAATTATGGTGAAGTCTTGCAAAAATGGATATTATTAGAAATTAGAAAAAAT 3126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3181 CACCAAAATTATCCTGAACTCTTCTGCAAAAATGGATATTATAGAAATTAGAAAAAAT 3240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1127 TACTAATELTACAGAFTAGATTTFATFTTAGTAFTGGAATGTGATAFAGTGTGFGTGTTTT 3186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4187 ITTATAAAATTTTGCTTTTAATTAAATAAAAGCCGGAAGCAAAGTATAACGAATATGATAC 3246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3301 HITATAAAATTITGTTFTAATTAAATAAAAGCTGGAAAGTATAAGCATATGATAG 3360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4247 TATCATACTACTGAAAAATTCATACTCAGAATGTAAAAGAACTTACTGAITAITIT 3306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2407 AAACCACIGAAAAACTACSTIIGALAIIGAAGGAICAGAIGAAGGAGGAGTAAA 2466
                                                                                                                                                                                                                                                                   2467 CATCTOSTAGAGAGAGATTICAGCAGAATTIGGGAGAAAATGATTIGTAGTGGAAGA 2526
                                                                                                                                                                                                                                                                                                                                         2587 GGATCTPAGGACCTFGGTGGACACTGTGTGACTGTGTGGAFFCATTGFCTGTGGAGATG 2646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2647 IGANTGIATAANITTENOOAGGIINITAIGGGGANAITIAAFAINITGAGGICITITI 2706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 11911| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 111| | 1111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 11| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 11| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 11| | 111| | 111| | 111| | 111| | 111| | 11| | 11|| 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2767 GIPATIGITALITATAPAAGATBAAAAICHGPHAAAAFCCHGPAITTAAAAAGHGL 2826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2827 ANDARATESTITECTETECAAASTAAAATGSTGGGTTTATGGATAGTAAGAATGGCC 2886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZBB1 GTCATTG1TAF1TATACAAGAFIGAAAATCTTG1GTAAAFCCTGCCATTTAAAAAGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2887 CTAGAGGAGTOTGATAACCCAGGCCFGTCTGACTTTGCCTTCTTTGTAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4307 CHICALCCAACHTAIGHTHTAAATGAGGAHAHAHAGHAGE 3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44.21 CTTCATCCAACITATGTTTTTAATGAGGATTATTGATAGT 4461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 38, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US 09 469 522 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PESULT 7
                                                                                                                                     Î
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 È
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     훒
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>-2</u>
                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \bar{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
```

Hu, Shi Xue Benedict, William F.

APPLICANT: Xu, Hong Ji

```
181 GCATTAIGTCASAAAITAAAGATACCAGATCAIGTCAGAGAGGGAGGT FOGLIAA TTGG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GANDOOGSGOAGGACGGCGGCGGCGCTOTGAGGACCAAAG AGGATAGGGCT20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 COGGAGGACCYGCYFCLFGLCAGGCYTGAGTTTGAAGAAGAAGAAGAATTGATTTTACY 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      112 -------AIGIGGIICACHTHACIOAGCIACAGAAAAAAAAAGAAIGT 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              159 CCATAAATICITTAACTTACTAAAAGAAATIGALAGAAGTAGAAGTIGATAATGATAL ZIB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             219 GTCAAGACTGTTGAAGAAGTATGATGTATTGTTGGAYTCTTCAGYAATTGGAAAGAC 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 TGGGGAATCIGIATCTTTATTGCACACTIGACTIACTCGAATACTACTGAAATAAATTCL 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  279 AIGTGAACIIAIAIAIIIGACACAGCCAGIICG -AIAICIACIGAAAIAAAIICI +++5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 GCATTGGTGCTAAAAGTTTCTTGGATCACAIITITATIAGGAAAGGGGAAGTATTACAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91.6%; Score 3066.2; DH 10; Length 33.3; 95.3%; Pred. No. 0;
                       TITLE OF INVENTION: MODIFIED RELINOBLASIONA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches 133; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
                                                                                                               ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                    OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: 7.,2559
SEQUENCE DESCRIPTION: SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRALION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 512/418-3000
TELFFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 3323 base pairs
                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALTORNEY/AGENT INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO. 38:
SEQUENCE CHARACIERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleic acid
                                                                  NUMBER OF SECUENCES: 51
Zhou, Yun.i
                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 3190, Conservative
                                                                                                                                                                                                       COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
                                                                                                                                                          CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hest Local Similarity
                                                                                                                                                                                    ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 င်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΩĐ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
```

~

TITICACTO  AATTOTOTO  AATTOTOTOTOTOTOTOTOTOTOTO	ਂ ਵਜਵੇਂ ਵੇਜਵੇਂ ਹੈ ਨੂੰ ਨੂੰ ਨੂੰ ਨਜ਼ਾਰ ਸਿੰਘੜੇ ਵੇਜਵੇਂ ਵਜਵੇਂ ਨਿੰਦਨ ਵਜਵੇਂ ਵੇਜਵੇਂ ਨੌਜਨੇ ਨਜ਼ਨੇ ਜਜਮ ਨਿੰਦਰ ਸਿੰਘ ਸਜਮ ਵਿੱ	IGGAAGAIGAICTGGTGAITTCATTTCAGTTAATGCTATGTGTGCTTGACTATTTTATT 48 	UCACCICCATGTTGCTCAAGAACCATATAAAACAGCTGTTATACCCATTAAT 5 FELLITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	COTTOGRACACOCIONAS GARGICAGARACAGAGAGAGACACGARACAAAACAACTA 60 	GALAGAAGAALTATTGAAGTIPTOTOTAAA - ITELITELITITITITITITITI GATACAAGAATTATTGAAGTTCTGTGTAA	AATGELFATERCAAAAATTETATACCTYTTAIGAATFCTCTEGGGCFYGTAACA 72. HILLIHHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	GACITCCAGAGGTTGAAAATCTTTCTAAACGATACGAAGAAATTTATCTTAAA 78 	GALCHAGA IGGAAGA FIATTI FIGGATÇATGATAAAACTÇTTGAGACTGATTCT 8. 	agaracittigaaacacacacacacacaaaaagtaaccticatcaticaacacgigaat 90 n-1	NATIUSTOCACACACTOCAGTTAGGACTGTTATGACACTATCCAACAATTAATGATG 9 	HITAAATICAGGAAGTGATGAACGTTGAGAAATCTGATTTCCTATTTTAGAACACTGC 1 HITTHITHITHITHITHITHITHITHITHITHITHITHIT	CCAAAAGAAAGTATACTGAAAAGAGTGAAGGATATAGSATACATCTITAAA 108 FEFFELLITTITTITTITTITTITTITTITTITTITTITTITTIT	GCTAAAGCTGTGGGACAGGGTGTGTCGAAATTGGATCAGAGGATACAAA. 	COCITOTATTACCOAGTAATGGAATCOATGCTTAAATCAGAACAACGAACGA 120 	CAAAATITTAGCAAACTICIGAATGAGAACATTITTGATATGTCTTTATTG 126 11111111111111111111111111111111111	CTIGAGGIIGIAAIGGCCACAIAIAGCAGAAGIACAICCICAGAAICTIGAI 13: FILLIH HILLIH HILLIH HILLIH HILLIH HILLIH HILLIH HILLIH CTIGAGGI GFAA FOCCACAIA FAGCAGAAGIACAICTCAGAATCTTGAI 12:	GALFIGICEL FCCCALCCAFTCTGAAFGTGCTFAAFFTAAAAGCCTFFGAT 138 HILLIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	GEGATÇOAAAĞTITTI TITÇAAAĞÇAÇAAÇTITĞAÇAAĞAĞAĞAATIĞATA 14. FELLET FELLET F	ON A NOTICE OF A CONTROL OF A TOTAL OF STATE OF
---	---	--	---	---	--	--	--	--	---	---	--	--	--	--	--	---	--	---	---

```
1561 ICTGCTTGTCCTCTTAATCTTCCTCTCCAGAATAATCACACTGCAGCAGATATGTATCTT 1620
                                                                                                                                                                                                            1957 IACAARGAPTOTIOTIOTIOTIOTIONAGASACAITGAAACGIGIITGAPCAAGAAGAGAS 2016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2341 ATAAATCAGATGATGATAATAACAGCGAGACGTGTGCTAAAAGAGAGTGGTGAAGAAGAAC 2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2581 AAAHGAGGAPPPGAGGAOOTHGGSGGAAATGPTAAAAAFTOTIGGGAFFAAFSSA 2640
1501 CCTTTATTFTGFFCTTATTAAAFAATGAAGGAGGAGGAGGAGGAGGAGTGATCATGTTGAA 1555
                                                                             1477 CCTTTATTTGATCTTATTAAACAATCAAAGGACCGAGAAGGACCAACTGATCACCTTGAA 1536
                                                                                                                                                                                                                                                                                                                                          1621 TCTCCTGTAAGATCTCCAAAGAAAAAGGTTCAACTACGGGGTGTAAATTCTACTGCAAAT 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1681 GCAGAGACACAAGCAACCTCAGGCTTCCAGAGCCAGAGGCATTGAAATCTAGGTGTGTT 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1741 TCACTGTTTTATAAAAAGTGTATCGGCTAGCCTATCTCCGGCTAAATACACTTTGTGAA 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1801 CGCCTTCTGTGTGAGGACACCAGAATTAGAACATATGATCTGGAGCCTTTTCCAGCAACC 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1861 CTCCAGAATGAGTATGAACTCATGAGAGAGAGGGTTTGGAGCGAAATTATGALGTGTGG 1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1921 ATGTATGGCATATGCAAAGTGAAGAATATAGAGCTTAAATTCAAAATCATTGTAACAGCA 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1897 ATGTATGGCATATGCAAAGTGAAGAATATAGACCTTAAATTCAAAATCATTGTAACAGCA 1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1981 TACAAGGATCTTCCTCCATGCTGTTCAGGAGACATTCAAACGTGTTTGATCAAAAAAGAG 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2041 GAGTATGATTGTATTATAGTATTGTATAACTGGGTGTTGATGGAGAGACACAAAAT 2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2161 AGCCCTTACAAGITICCTAGITCACCCTIACGGATTCCIGGAGGGAACATCTAIAITICA 2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2137 AGCCCTTACAAGTTTCCTAGTTCACCCTTACGGATTCCTGGAGGAACATCTATATTCA 2196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2197 OPOTERANA MARIANA MANANI MANANI MANANA MANANANA MANANA MANAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2281 AGATCAAGAAICITAGIATCAALIGGIGAAICAITGGGGACIICIGAGAAGIICCAGAAA 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2317 ATAAATCAGATGGTATGTAACAGCGGGGGGGGGGGAAAGAAGAAGTGCIGAAGGAAGCAAC 2476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2461 AGTAAAGATGTGGGAGAGAGTGGAAATITGAGGAGAAAGTGGGAGAAATGACTGGTAGT 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2521 GGAACACGAAATGCAAAAGCABAAATGAATGATAGCATGGATACCTCAAACAAGGAAGAG 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1777 CGCCTTCTGTCTGAGCACCCAGAATTAGAACATATCATCTGGACCCTTTTCCAGCACACC 1836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1837 CTGCAGAATGAGTATGAACTCATGAGAGACAGGCATTTGGACCAAATTATGATGTGTTCC 1896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2017 GAGTATGATTGTATATAGTAGTAGTGGGTGTTGATGGAGAGAGTGAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2101 ATTITGCAGINGCIICCAGGAGGGGGGIAGCIIGICAGGAATACCICACAIICCICGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2401 PCTPPTBAAAPGAGTGAAAAAGTAGGGTTTGATATTGAGGATGAGATGAAAPAGAJGGA
                                                                                                                                                                                                                                                                                                                                                                                            q
•••
                                                                        qq
                                                                                                                                                                   ò
                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                               ò.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
2857 ALGAROSCI AGANGO GAGANGO GARANG CANANG ALGANG TANDELLE HELLELLE STORE SALGANG TANDELLE SALGE SALG
2641 CAGATGTGATTGTATAACTTTCCCAGGTTCTGTTATGGGCCACATTAATATCTTCAGGT 2700
                                                                                                                                                                               2701 CITITICIOGALALAAAALGIGCAGAIGCAATIGTITGGGTGATIGGIAAGCCAGITGAA 2760
                                                                                                                                                                                                                                                                                                                                                               2761 AUGITAGICALIGITALITALACAAGATIGAAAATCTTGTGTAAAATCTTGCCALTTAAAA 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2821 AGTEGIAGGASA11G111GC1C1103AAAGIAAAA11GCTGGGGTTA1GGATAGTAAGA 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2941 TAGMATATAGGTGATGTTTGMTGTTTATTATTATATTTATATTTTAATTT 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8061 PPPALICACAAAAHATCHGAACHCHCIGCAAAARGGATATTAHAGAAATRAGAA 3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8037 CCCATTCACCAAAATTATCCTGAACTCTTCTGCAAAAATGGATATTATTAGAAATTAGAA 3096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1121 AAAAALTACTAATIILACACAITAGATTTTPATTTFACTATTGGAATCTGATATACTGTGT 3180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1181 GCTTGTTTTATAAAA1TTTGCTTTTAATTAAATAAAAGCTGGAAGGAAAGTATAACCATA 3240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3241 HOAFACTALOAFACTACTECTOAAACAGAFTTCATACCTCAGAATGTAAAAGAACTTACTGAT 3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LITLE OF INVENTION; MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4301 TATILLOTTCAFCCAACTTATGTTTTAAATGAGGAFTATTGATAGT 3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENTES: 51
CORRESPONDENCE ADDRESS:
ADDRESSEE: ATROLD, White & DHYKEO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Benediet, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM;
MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 28, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: P.O. BOX 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Xu. Hond Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hu. Shi Xae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Parent No. USZ0020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    111Y: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              115.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US 09 469 522 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT #
                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \frac{5}{5}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
```

```
341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ¥6.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             249 GTICACITITACIGAGCIACAGAAAAACATAGAAAICAGIGICCATAAAITCITITAACIT 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    §69 GTATGATGTATGTTGCACTCTTCAGCAALLGGAAAGGACATGTGAACTTATATATTT 4.28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----ATCLACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTC 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              429 GACACCCAACCCAACATTCGATATCTACTGAAATAAATTCTGCATTGATGCTAAAAGHTFC 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        189 TTGGATCACALTITTALLAGCTAAAGGGGAAGIALTACAAATGGAAGALGALCIGGLGAL 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               441 ITCATITCAGITAATGCIATGTGTCGTGACTATTITATTAAACTCTCACTCCCATGTF 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Indels 207; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       309. ACTAAAAAAATIGATACCAGTACCAAATTIGATAATGCTA IGTCAAGACTOTTGAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      228 TTGGTTAAGTTGGGAGAAGTTTGATGTGTGGAGTATTGGGGAGTATTGGGAGTATTGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          129 TTGGTTTAACTTGGGAGAAGTTTCATCTGTGGATGGAGTATTGGGAGTTATATTTGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    381 ITGGATCACATTITLATTAGCTAAAGGGGAAGTALTACAAATGGAGATGATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 3019.8; DB 10; Length 4455;
Pred. No. 0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              288 GAAAAAGGAACTGTGGGGGAATCTGTTTATTGCAGCAGTTGACTAGTCGA
                                    SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0: Mismatches
                                                                                                                                                                                                                         RECISTRATION NUMBER: 41,071
REFERENCE/DOCKEL NUMBER: 0.XC:506
TELECOMMUNICATION INFORMATION:
TELEFORE: 5.12/418:3000
TELEFORE: 5.12/474:7577
                                                                        APPLICATION NUMBER: US/09/469,522
COMPUTER: THM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 7, 2691
SEQUENCE DESCRIPTION: SEQ 1D NO: 28:
                                                                                                                                                APPLICATION NUMBER: 09/026,459
                                                                                            FILING DATE: 22-Dec 1999
CLASSIFICATION: <unknown >
                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ 1D NO: 28:
SEQUENCE CHARACTERISICS:
LENGTH: 3455 base pairs
TYPE: nucleic acid
                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                           NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90.28;
                                                                                                                                PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 4238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ζζ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>1</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

.60 .68	.20 .28	.80 .88	40	000	њо 168	.20 .028	180 088	040	100 208	160 268	220 328	~ ~ ~	.340 448	400 508	460 568	520 628 ·	in w	640
AAA BAACCATALAAAACAGGGTATAACCATTAALGGTTCACCTCGAACACCAG 5	COGGAACAGGAGTGCACGGAT 	TUTOTGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAA 6		TITETAAACGAIACGAAGAATIIAICTIAAAAAIAAAGAICIAGAIGGAAG 8 	TGAAACACA 8                 TGAAACACA 9	SCHOAAHCHAATHCCHCACACACHCC 9	TTCAGCAAGTGA 9	TCASAAAATCIGATIIOCIAIIIIAACAACIGGAGAGIGAATCOAAAAGAAAG 1 	IGAAAGAGIGAAGGATATAGGAFACATCTTTAAAGAGAATTIOCTAAAGCTGF 1 	GRETTETTETTETTETTETTETTETTTETTTTTTTTTTT	CCANANITITAG 1	DIELGAALGACAACATTTTTCATATGTCTTTATTWGGCGGGCGCTTTGAGGTTGFT 	GBSCCATATATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTGTGTTT 1	CCATGGATTCTGAATGTGCTTAATTTAAAGCCTTTGATTTTTACAAGGGTGATCGAAAG 1	ACAAGAGAAAIGALAAAACATTTAGAACGATGTGA 1 	GGATCTTATTAA 1 	ACCARCIGATICACTIGAATCIGCTIGICCTCTIAATCT 1	CCASAATAATCACACTGCAGCAGATATGTTTTTTTTTTTT
1.10A/ 	90 <b>0A</b> 067 	IGAAGT  - - - TGAAGT	AAA!!	ESAAAATO ESTELLE ESAAAATO	ALTAL	AGAAC AGAAC GAGAAC	AGTTAC      AGITAC	TCAACCT  - - - - - - TCAACCT	IATAC I : I I I IATAC	GGGACAGGGTT CLLELLITITI GGGACAGGGTT	**************************************	CAAACI	AATGGG     	CCCAT FILL CCATC	IIIIA IIIIIA	Z - 4	ACAATO    	1:301:01
	56.1	12.1		1 \$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	108	7 59 5 7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	921	181	1143	. •	1161	1221	1.38		14:1 15:09	1461	3 4	
÷	S 2	§ ±	5 5	÷ ±	5 3	45	qe Ar	à â	5 5	5 8	3 =	5 3	S ±	5 ±	5 ±	ş ŝ	\$ ±	Č.

```
2600
                                         2181 TTCACCTTACGGAILCTGGAGGGAACATCTAIAIICACCCCTGAAGAGICCATATAA 2240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2709 TEGTEGACACTGTACACCTCTGGATTCATTGTCTCTCACAGATGTGACTGTATAATT 2758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2661 PCCCAGGTPCTGPPPAFGGGGACACATTAAFAFCFTCAGGTGFFFFFFGFGGAFATAAAAATG 2720
1749 GAAAAAGGFFCAACTACGCGFGTAAATTCTACTGCAAATGCAGAGAAGAAACCTC 1808
                                                                                                                                                                   1821 AGAATTAGAACATATCAICTGGACCTIIITCCAGGACCCIGCAGAATGAATGAATAGAACI 1880
                                                                                                                                                                                                                                                                                                                           1941 GAAGAATATAGAGCTTAAATTCAAAATGATTGTAACAGGATAGAAGGATGTTPALGG 2000
                                                                                                                                                                                                                                                                                                                                                                                                          2289 PHYTARCHITAGGGAPHICHIGGAGGGAACATCHATTTTGACCCTGGAAGAGTCCATALAA 2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2349 AATTTCAGAAGGTFTGGFAAGAAGAAAAAGAAGTGGAAGATGAAGAAATGTTAGTATG 2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2361 FASTSACCERCRATATAAAAAASIGMISAAGSAAGGAACCIGGIAAACCACIGAAAAA 2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1701 AGCCTTCCAGACCCAGAGCCATTGAAATCTACCTCTTTTGACTGTTTTATAAAAAGT
                                                                                                                           1809 AGCCTICCAGACCCAGAAGCCAIIGAAAICIACCICIIIICACIGIIIIAIAAAAAAGI
                                                                                                                                                      1761 GTATOGGCTAGGCCTATOTOGGGTTAAATAOACTTIGTGAAGGCCCTTCTGTCTGAGGACGC
                                                                                                                                                                                                                                                                      1881 CATGAGAGAGAGGCATTTGGACCAAATTATGATGTGTTGCATGTATGGCATATGGAAAGT
                                                                                                                                                                                                                                                                                    2241 AATTTGAGAAGGTGTGGGAAGAGGAAGAAAA GAGTGGAAGATGAAGATG FAGFAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2301 AATHGGRGAATGAPTFGGGACTTGTGAGAAGFFGGAGAAATAAATGAGAFGGFAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2481 GTCCAAATTTCAGCAGAAGTGGCAGAAATGAGTTCTAGTGGAAGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2589 GTCCAAATTTCAGCAGAACTGGCAGAAATGACTTCTACTGGAACACGAATGCAAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2601 TGGTGGAGAGTGTGTAGACTGTGGATTCALTGTGTGTGTGACAGATGTGAGTGTAAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                  90
                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ≘
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                 ò
                                                                                                                          a
                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
```

```
2769 PCCAGGITCIGITALGGGGAATIIAAIAIGITCAGGITTTTTGGAATAIAAAAIG 2828
                                                                           2721 TGCAGATGCAALIGITLGGGGGALIGCCAAGGCACTIGAAATGTTAGTGATTTTA 2780
                                                                                                                          28.29 TGCPGAALGITGGGGGATTGCCAAGCAACTIGAAATGTAAGGAATGTTAA 2888
                                                                                                                                                                                                                                                             2781 TACAAGATTGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGAAGTTGTTTGC 2840
                                                                                                                                                                                                                                                                                                                                                                                                                                               2841 1011FCQAAAGTAAAATTGTTGTGTTTATGGATAGTAAGAAFGGGGGTTAGAGAGTGGGAGTG 2900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2901 CHGATAACCCAGGCTGTGTGTGTGTTTGCCTTCTTTTCTAGCATATAGGTGTGTTTG 2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4009 CLOATAAACSGAGGCTGCCGACTAGCTTGCTTGTAGAGGAAAAAGGGATGTTG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2961 CPCTIGITITIALIAATITAKANGITAATITITITAATITIAAAGAGAGGGGTTAGAAA 3020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3021 ATGEGLECTATE LECTANDIA FELGATEGACION AND TENNING AND TENNING AND TENNING TO THE AND THE A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4189 TOTACTICITICITY AAAAAAAA TATATIA TAGAAATTAGAAAATTACTAATTTACAC 3248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201 CTTTFALIAAATAAAAGCTGGAAAGTALAACGATATGATACTATGATACTGATAGTGA 3260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3309 CITITAATTAAATAAAAGCIGGAAGCAAAGTATAACCATATGATACTATGATACTACTACTGA 3368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3261 AACAGTTTCATACCTCAGAATGTAAAAGAACTTACTGATTATTTTCTTGATGCAAGTTA 3320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3129 AIGIGICIATGIATGITGGAAAIGGAAATITGAITGACIGGGCAITCAGAAAAITAIGG 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TILLE OF INVENTION: MODIFIED RELINGBLASIOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DAIA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ALDRESS:
ALDRESSEE: Arnold, While & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: THM PC COMPATIBLE
OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3.421 TGITTIIAAATGAGGATTATTGATAGT 3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 46, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21P: 77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent No. HSZ0020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 9
US 09 469 522 46
                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
```

```
942 TATCCAACAATTAATGALGATTITAAATTCAGCAAGTGATCAACCTTCAJAAAATCTGAT 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  342 ATCTACTGAAATAAATTCTGCATTGCTGAAAAGTTTCTTGGATCACATTTTTATTAGC 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       402 TAAAGGGGAAGTATTAGAAATGGAAGATGLGGTGATTIFFATTIFFAGTTAATGFTALG 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HELLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5.2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          522 ACCTIGITATACCCATTAATGGTTCACCTCGAACACCCAGGCAAGGTCAGAACAGAAGAGTGC 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  582 ACGCATACCAAACAACTACAAATGATACAAGAATTATTGAAGTICLCTGTAAAGAACA 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           408 TGAATGTAATATAGATGAGGTGAAAAATGTITATTICAAAAATTTTALACCTTTTAIGAA 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      468 TICICITGGACTISIAACATCIAATGGACTICCAGAGGTICAAAATCTTICTAAAACATA 527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      528 CGAAGAAATTIAICTIAAAAAIAAAGAICTAGAIGAAGAITAITITIGGAIGAIGAIAA 587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      882 CCFFGATGAAGAGGTGAATGTAAFTTCTCCACAPACFFAGGFFAGACFFGTGTTATAAACAC 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Op Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               462 TOTCCTTGACTATTTAATAAACTCTCACCTCCCATGTTGCTCAAAAAACATATAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     642 IGAATGTAATATAGAGGTGAAAAATGTTTATTTCAAAAATTTTATACTTTATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             702 TECTOTOGGACTEGRACATOTAATGGACTEGCAGGGTEGAAAATCTTTTAAAAGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                762 CGAAGAAATTIAICTIAAAAAIAAAGAICIAGAIGCAAGALIAITLIIGGALGAIGAIAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89.8%; Score 3006; DB 10; Length 4113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .`
                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION: SEQ ID NO: 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No.
                                                                 PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
FILING DATE, 22 Dec 1999
CLASSIFICATION: + Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGIH: 3113 base pairs
                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: 512/418-3000
                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                           FILING DATE: + Unknown>
                                                                                                                                                                                                                     David W.
                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 36: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 3006; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
                                                                                                                                                                                                                     NAME: Hibler,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-469-522-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      े
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
```

:

18,	214	190	550	196	22.5	202		208	23.8	214	244	220	25.0	226	256	232	. 46.	238	268	244	274	250	280	256	28.5	262	3.			770	¥0.5				3.15	000
qu	Qy	ପ୍	03.	ď	ŝ	00	0	qq	Οŷ	â	٥y	qu	ò	qa	ΟŸ	占	ζ0	QC	9	qu	ΟY	qq	Ö	qu	Ş		S	qq		ã € •••		à d	3 8	G 5	ŝ	- 2
			·																										•	٠.	-					
827		1121	) -	947		1.007	-	1301	2 4	1361	1 1	1421	) 0	1247	1 0	1307	5 :	1961	2 '	1427	7 4 5	1 7 7	0	$\infty$	4	1841	/091	190	1667	1961	1727	2021	1787	20	1847	2141
IIIII AAGGA			LUCAL	MGCT				10AAG			1.61.	AA	<b>U</b>			AAGC	Sec.	ACAC		90900			MACACL.	211000	STOCE	VICIG	Arcre	THE TOWN	TGGA	AAATT	AAATT	TCAAAGG	AAACG	TICAT	TCAT	CACC
			700104	MTCC/	į			TATAGCAGAAG			, I WW.	ACAAC	4 4 1 1			Z - C		A - 4		AACT	1000		TE SAN THE SAN	CCTATO	CTATO	ATATO 	ATATE.		SGCAIT	==	==	SATTO	ATTC.	SGGTCT	::::::::::::::::::::::::::::::::::::::	
I I I I I			00100	AATGG/	Č		70.7	ACAL			,110		A D F & C			AAACC 	i i i i i i i i i i i i i i i i i i i						W.W.	SCTAG	SCTAG	AGAAC!	AGAAC/	40.ACAC	NGACAC	rATAG	rATAG	3GAGA(	3GAGAC	AACTO	FAACTO	CCTAC
HIIIIII ATACTICAAA			CACT		0		7	ATGGG 		2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Ċ	<b>4</b> – <b>4</b>				0 - 0 - 4 - 4 - 4 - 4		3 = 8 3 = 8						FATCG	I.A.I.C.C.	AATT 		A#GAĢ  - -	ATGAG	AAGAA	AAGAA.	STICA	- ¥ 0	TTCTA	TTCTA	AGGGG
ZAAAAGAAAGTA		AS ALC LLI MANGONAMI LLOS LAMAGOS LOS POSANIANOS EL LE LELE LE LE LE LE LE LE LE LE LE L	Δ'T.T.Δ	** ARACTIOSACTION TO THE CONTROLL OF THE THE TIME TO THE THE THE THE TIME THE THE TIME THE TI	55	A	, C						A DE			16G CCCAGA FORCETT ATTICATOTT TAACAATCAAAGACCCGCAAAGG TOOTOTT TILLET FEET FEET TO THE FEET		T WALCE		N. A. E.				IGAAA  STACCTCTCTTTTTTTTTTTTTTTTTTTTCCCTACCCTA	AAGTG	AAATAGATTIGTGAAGGCTTGTGTGTGAGGGCGGGGAAATAGAACATATGATGATGTG	ACCO	GACCOLLLICCACCACACACTGCAGAATCACTATCATCATAAGAGAGACATA - IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	AACTC	FG1ATGGGATATGCAAAGTGAAGAATATAGACC	AAGTG	ACAAGGATCTTCCTCATGCTGTTCAGGAGAT	ATGCT	IGATCAAAGAAGAGGATATGATTATAGFATTGTATAACTGGTCTFGA +- - - - - - - - - - - - - - - - - - -	TAGTA	CCACC
AAAAG		TAAAG	45410	CTTGT				16AGG		5-5													44 Test	TAAAA	AAAA	19467 	<b>P</b>	DTATO.	GTATG	ATGCA	ATGCA	TCCTC		TATTA	TATIA	FGCTT
TAACAACTGCACACTGAATCC	į		301108	611100 611100								- AAAG	STING				10111						· ·		<b>d</b> 1 1 1 1 1	77577	<u>-</u> 	4A I GA	SAATGA	GGCAT	GGCAT	GATCI	- IA	GALIC	GATIC	CAGTA
IIIII MCAGTO		3ACAAA	7000 10	T1667			Ċ					¥						3 = 5						CACTO	CACIL	11111		STGCAC	TGCAC	ATGTAT	ATG LA	CACAAC	AC AAC	3AG1A1	AGTAI	THIE
ACT GCA		AAA	) A A A C	ACAAA(	0	ACAACAACAACAA.		A116					A E A ST			A		TOALCALCI TOAAT					WWW			TCAA	CAAC	ACACCC 	NCACCC	ALFALGAFOTGITFCCAF	20118	ATCATTGTAACAGCATA	ACCA1	AAGAGG	MGAGO	AAAIA
AACA4		Y - X	) [ V ] (V ]	SCGATA	6			A161611								1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -				AIGIA				ACC10	ACCIO	MCTTTC	)	70.AGG/ 	CAGG	SAFGTC	3A1G1G	FGTAAC	GIAA(	AAAG	:MAAG!	AAAA
===		A S S S S S S S S S S S S S S S S S S S	Α, Α,			74.74						1 1 AAAAGCC 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7. AA. 3.					#		ACA 				YAA	S AAA	MATA:	AA LAG		TITIC	AT I A	×	VICATI	- (A)		ITGATO	PARAGACT GAAAACAAA FIFFICAATTA IGCITTCCACCAGGGCCCCTACCTTGTCACC
1001	. ;	- ¥	7.7	100	4	( – 4 ( – 4	C			( -		¥ - 4	CTTC		,	T.C.A.		- 4 - 4 - 5 - 7					7.7.7.1	A111G/	_	MINE LILI	<u>ج</u> ج	<b>A</b> ??	:NCC	SAA.	CAAA	YAAAA.	'AAAA	<u> </u>		37AQ
768			_	иня ВВВ	3	N X		7 7 7		1 202	•	2 C		2 2	5 0			, i		1 468 1 468		V (I	2	$\sim$	90	1782	r)	1842	1608	1905	16.6.8	1.462	œ ~	2::22		2018.2
£		ş .	ŧ	; <u>ŝ</u>		ž .		q É		S 1	ì	) ]		Ç =		20 €		J		ģ 4		; ;		5	<u> </u>	Š :	<u> </u>	Š	Î.		<u>.</u>	ŝ	ž.	5	â	:- :5

2928 GCAATCTGATATACTGTGTGCTTGTTTTATAAAATTTTGCTTTTAATAAAAGGTG 2987 42 AATACCICACATICCICGAAGCCIIACAAGIIICCIAGIICACOTIACGIGAIICOLGG 2201 92 AGGGAACATCTATATTTCACCCTGAACACTCCATATAAAATTTCACAAGGICTCCCCAAC 2261 62 ACCAACAAAAATGACTCCAAGAICAAGAACTIAGIAFCAATIGGTGAATCAITCGGGAC 2321 22 ITCTGAGAAGTTCCAGAAAATAAATCAGATGGTATGTAACAGGGACCGTGTGCAGAAAG 2381 88 ITCIGAGAAGTICCAGAAAATAAATCAGATGGTAIGIAACAGGGACCGTGTGTGTCAAAAG 2147 P2 AAGTIGGTIGAAGGAAGGAAGCCTGCTAAAAGAAGTSAAAAAGTAGGCTTTGATATTGAAGG 2411 48 A63F6P15AA65AA65AA65AAPOCTOTTAAAPOTACAAAAAAACTACGTTTGATTGAATATGAACG 2207 28 TAPCTFAAAPAAGAAGAAATGAGGATOTOAGGACTIGGIGGACACTGTGTACACCT 2387 48 ACATTAATATCTTCAGCTCTTTTTGTGGAAAATGTGCAGATGCAATTGTTGGGT 2507 42 GAPPCCTAAGCCACTFGAAAFGTTAGTCALFGLIATITATACAAGALFGAAAALCTFGLG 2801 O2 TANATECTSCENTITAAAAAGIISTAGCAGAITGIIICCICIICCAAAGIAAAAIIGCIG 2861 A2 PRINTERPRANTATANTANTANDERCINGRASIGOSAGIOCIGATANOCAGOCOCOTOTO 2921 28 TOCTITATEGATAGTAATGGCCCTAGAGTGGTGATAACCCTGATAACCCATGTGTG 2687 82 ATGTATATTTTTAATTTAACATGAACACCTTAGAAAAIGTGTGTGCTATCTTGTG 3041 42 AATGCAATTGATTGATGGCCATTCACCAAAALIAFCCTGAACTCTTCTGCAAAATGG 3101 OR ANTGRANTIGATICACIOCCALICACCANAMAILAICIGAACICIGGAAAAATGG 2867 02 ATATTAPTAGAAATTAGAAAAAATTACTAALITTACACATTAGATFITATTLAGTALL 3:51 62 GGAATGTGATATACFGFGFGCTFGPFFATAAAAFITTGGTTTTAATTAAATAAAAAGGTS 3.2.2.1 PR CYGGATTCATTGLCTCTCTCACAGATGLGACTGATAACTTTGCCAGGTTCFCCTATAGGCC 42 ATCAGATGANGCAGATGGAAGTAAACATCTCCCAGGAGAGTCCAAATTTCAGGAGAAACT 22 PROSAFICATIOTOTOTOTOTAGAISTALAACIIICOCAGGITOTGIITAIGGOO 82 ACATTTAATATCTTCAGCTCTTTTTGTGGATATAAAAIGTGCAGATGCAATTGTTTGGGT q

```
--
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                     5
                                                                                                                                                                                                   q
                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                    â
                                                                                                                                                                                                                                                                                                                                   qd
                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>۾</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q (1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                  3
                                                                                                  ^{\circ}
                                                                                                                                QQ.
                                                                                                                                                                                                                                                                                                       ें
                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                               ZBBB GAAGGAAAGIAFAACGATAFGATACTATGTTACTGAAAGAGAGTTTGATACGTGAGAA 3047
 1222 GAAGTAAAGTATAAGGATATGATACTACTACTAGTGAAAGAGTTGATAGGTGAGAA 3281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44. APCTACTGAAATAAATTCTGCATTGATGCTAAAAGTTTCTTGGATCACATTTTTATTAGG 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  213 ATCTACTGAAATAAATTCTGCATTGCTAAAAGTTTCTTGGATCACATTTTATTAGC 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 402 TAAAGSSSAAATALACAAATGSAAGATGEGGTGATTTCATTTCAGTTAATGCTATG 461
                                                                                                                                                                                                                                                                                                                                                                     TILLE OF INVENTION: MODIFIED RELINOBLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89.8%; Score 3006; DB 10; Length 3218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCEZORCKET NUMBER: UTXC:506
LELECOMMUNICALION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Arneld, White & Furker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA: APPLICATION NUMBER: 05/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Prod. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRALLON NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 22-Dec 1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                   Benedict, William F.
Zhou, Yanli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: 512/418 3000
TELEFAX: 512/474 7577
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                        PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 3218 base pairs
                                                                                                                                                                                                                                                  Sequence 4, Application USZ09469522
Parent No. USZ0020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: - Unknown - ATTORNEY/AGENT INF-EMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: P.O. BOX 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hibber, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: sindle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100,00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 . . 2454
                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                   APPLICANT: Xu. Hong Ji
                                                                                                                                                                                                                                                                                                                     Hu, Shi Xae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches (00%) Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ToPoloGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77210 4444
                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAMEZKEY: CUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CliY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                    CENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lox'ALLON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               st Lowal Similarity
                                                                                                                                1142 GAIAGE 1147
                                                                                                                                                                 STUB CALACT 3113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIAIES
                                                                                                                                                                                                                                  US 373 469 522 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US UP 469 522 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Journ y Matich
                                                                                                                                                                                                                   PESSULE 10
                                 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ė
                                                                  5
                                                                                              3
```

```
942 TATCCAACAATTAATGATGATTTTAAATTCAGCAAGTGATCAACGTTCAGAAAATCTGAT 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1062 TATAGGATACATCTTTAAAGAGAAAFTTGCTAAAGGTGGGGACAGGGT1G101CGAAAT 1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1122 TGGATCACAGGGATACAAACTTGGATTGGGTTGTATTACTGAGTAATGGAATCATGCT 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1242 TTTTGATATGTTTTATTGGCGLGCGCTCLTGAGGTTCTAATGGCCACATATAGCAGAAG 1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1113 TITICATATGICITITATIGGGGTGCGCTCTIGAGGTTGTAATGGCCACAIATAGAGAAAA 1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1302 TAZATETEAGAATETEGATTETEGAAZAGATTETGTETET PPEATETETGAATGTGT 1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1362 TAATTTAAAAGCUTTIGALITITACAAAGIGALGAAAAGITTTATCAAAGCAAAAGGAA 1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            233 TAATTI AAAAGCTI IGATTI FILAAAAAGIGAAAADI III AIGAAADAADAAAA 1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1422 CTTGACAACAAATGALAAAACATTTAGAAGGALGLGAAYATGAAATGAAALCCCT 1441
                                                                                                    522 AGCIGITATACCATTAATGGTTCACCTFCAACACACAGGTGAGGTCAGAACAGAGTGT 581
                                                                                                                                                                                                                                                                                   701
                                                                                                                                                                                                                                                                                                                                                                                                                                         513 TGAATGTAATAGATGAGGGGAAAAATGTTTAAAAAATTTTATAAATTTTATAAA 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             702 TICTTGGACTTGTAACATCTAATGGACTTGCAGAGTTGAAAATCTTTCTAAACGATA 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              573 ITCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAATGTTTCTAAAAAATA 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  762 CGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTTGGATGATGATAA 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 882 CCTFGATGAAGAGGTGAATGCTGCACACACTGCTGTTAGGACTGTTATGAAAAC 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          273 TAAAGGGGAAGTATAGAAATGGAAGATGATGTGTGTTTGATTTGAGTTAATGTATG 332
                                                                         462 IGECCTIGACTATITATITAAACTCTCCCCATGTTGCTCAAAGAACATATAAAAC 521
                                                                                                                                                                                                            642 TGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATACCTTTTATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          813 TATCCAACATTAATGATGATTTTAAAT FCAGCAAGTGATGAAGG FFGATGAAAA FTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1182 TAMATCAGAAGAAGAAGTTATCGATTGAAAATTTTAGCAAAGTTGTGAATGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1053 TAAATCAGAAGAAGGATTATCATTGAATTTTTAGGAAARTTGTGAAAGAT
```

```
US-09-469-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ٠.
ج
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ę,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 % AATASCTA ASATTOCTA AAAS COTTAAAASTITOOTAGITAAGOOTTAAGAATTOCTAG 2072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24 * FACTORARACARCARARACA A GARATO TO GARACTTO GARACTECIO GARACTECIO CONTROLO CONTRO
1454 ISCATGSCHITCACALICACCHITATHICAFCTTATTAAACAAAGGAAAGGAAGGAAGG 1412
                                                                                                           1942 APPANTGAICAGCITGAAIGTGFIIGICCICITAAFCIICCIGGCAGAAFAAIGAGA, 1601
                                                                                                                                                                                                                 141 + ACCAMPIGATCANTIGAATCIGCITGICCITIAAICITCCICCCCGGAATAAICACAC 1472
                                                                                                                                                                                                                                                                                                                        1552 TSCAGCAGATATGTATGTTTTTTTTTTTTTTTCTCCAAAGAAAAAGGTTCAACTACGCG 1661
                                                                                                                                                                                                                                                                                                                                                                           14.2 C. GOGAGAGATATGTATGTTTGTGGTGTAAGATGTCCAAAGAAAAAAGGTTCAAGTAGGGG 1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P+2 TSTAAATTSTAGTGCAAATGCAGAGAGAGGAGGAACCTCAGGCCTTCCAGACCCAGAAGCC 1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1/22 ATTGAAAICTAGCTGTTTTGACTGTTTTATAAAAAAGTGTATCGGCTAGCCTAICTCGG 1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1000 A MITGAAAICIACCICTCTCTCTCTTTTATAAAAAGTGTATCGGCTAGCCIAICICCG 1652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1842 BACCTITICCAGGACACACTCCIGCAGAAIGAGIAAGAACIGAIGAGAGAGAGAGATTIGGA 1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1233 daccerricadeadaceergeadaargadrargaaereargadagacaagacaarraga 1772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 602 OCAAATTATGATGTGTTCCATGTATGCATATGCAAAGGGAGGAGTATAGGAGGTTAAATT 1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1774 CCAAATTATGATGTGTTCCATGTATGGCATATGCAAAGTGAAGAATATAGACCTTAAATT 1832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1962 PAAAATGATTGTAACACATACAAGGATCTTCCTCATGCTGTTCAGGAGACATTCAAAAG 2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2022 TGTTTTGATCAAAGAAGAGGAGTATGATTCTATTATAGTATTGTATAAGTCGGTCTTCAT 2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20082 STANDARGIGAAAACAAATAITITGCAGIATGCTICCACAGGCCGCCGCTACCTIGICACC 2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1954 (B) AGAGACTGAAAACAAATATTTTGCAGTATGCTTCCACCAGGCCCCCTACCTTGTCACC 2012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.42 AATAOTTOAGATTOOTOGAAGGCOTTAGAAGTITTGCTAGTITGAGGGATTAGGGATTGCTIGG 2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2202 AGGGAAGATGTATATTTCACGGGTGAAGAGTGCGATATAAAATTTGAGAAGGTGTGGCAAC 2261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       225 ACCAACAAAATGACTCCAAGATCAAGAAICTIAGIAICAAITGGTGAATCATCGGGAC 2321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.4.2. TPT DAGAAGTTPPGAGAAATAAA PGAGATGGPATGFAACAGGGACGGFGTGAAAAG 2381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2154 TESTGAGAAGITGCAGAAAAIAAAICAGAIASTGATATGTAAFAGAGCGAGCGIGTGCTGAAAAG 2252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 882 ANGLIGTGAAGGAAGCAACCCTCCTAAACCACTGAAAAACTACGCTTTGATATTGAAGG 2441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2215 - BACHGURGAAGGAAGGAAGGOOGORAAAAAAAAAAAAAAGGTAGGGTTTGAAGG 2312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2442 ATCAGATGAAGGAGATGGAAGTAAACATCTCCCAGGAGAGTCCAAATTTCAGCAGAAGT 2501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               250.2 PRINGAAATGAGT FETACTGAACACAATGCAAAAGCAGAAATGAATGATGCATGGA 2561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2562 TACCTCAAACAAGGAAGAAAATGAGATCTCAGGACCTTGGTGGACTGTGTACACCTT 2621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -
```

```
3282 TGTAAAAGAACTTACTGATATTTTCTTCAACTTATGTTTTTAAATGAGATTATT 341 1411 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2613 GATTCCTAAGCCACTTGAAATGTTAGTCATTGTTATTATACAAGATTGAAAATCTTGTG 2672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2673 TAAATCCTGCCATTIAAAAAGIIGIAGCAGAIIGIIICCICTICCAAGIAAAAIIGCIG 2732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2733 TGCTTTATGGATAGTAAGAATGGCCCTAGAGTGCGGAGTCCTGATAACCCAGGCGTGTCTG 2792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2973 ATATTATTAGAAATTAGAAAAATTAGTAATTTTAGAGATTAGATTTTATTTAGTTTTTAGTTTT 3032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3222 GAACCAAAGTATAACCATATCATACTATCATACTACTGAAACAGATTTCATACCTCAGAA 3281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3042 AATIGGAATITIGATITIGAGTIGGGGATTICAGGAAATITATGGTGAAGTTGTTGTGGAAAAATIGG 3101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3162 GGAATCTGATATTGTGTGTTGTTTTATAAAFTTTGCTTFFAATTAAATGAAAGGTG 3221
2622 CTGGAPTCAPTCTCTCTCTCACACATGTGACTGTATAACTTTCCCAGGTTCTCTTTATGGC
                                                                                                                                  2493 CTGGATTCALTGICICICACAGAIGTGACIGIAIAACIITCCCAGGIICTGITTATGGGC
                                                                                                                                                                                                                                                                           2682 ACATTTAATATTTCAGCTGTTTTTTGLGGATATAAAATGLOCAGAGATGCALTGCATGG
                                                                                                                                                                                                                                                                                                                                     2742 GATTGGTAAGGGAGTTGAAAATGTTAGTGATTGTTATATACAAGATTGAAAATGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2802 MAAATOOTOCATTITAAAACTICIACAAATTICTOOTOOTOOTOOTOOTOOTOOTOOTAAAAATTICOTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2862 TGCTTTATGGAFACTAACAATGGCCCTTAGAGTGGGAGTCCTGATAACCCAGGGCTGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2922 ACIACTIIGCCTICIIIIGIAGCAIATAGGIGAIGIIIGCICTTGIITTATTAATTTAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2982 ATCLAPATITITITIAATITIAACATGAACACCCTTAGAAAATGTGTGCCTARCTAPCTAPCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8033 GGAATCTCATATACTGTGTGTTTTTATAAAATITTGCTTTTAATTAAAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2913 AAHOGAATTIGATTIGAGTIGGGGAFTGAGGAAAFTATGGTGAAGTGTTGTGGAAAAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET. P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shi-xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. US20020151461A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3213 GATAGT 3218
```

```
90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                342 ATCHACHGAAAFAAAATTCTGCAFTGGTGCHAAAAGTTTCTTGGATCACATTTTTATTAGC 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              582 ACGMATAMOAAAA AACTAGAAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAAGA 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         702 TICHELEGACLEG AACAR TAATGGACH COAGAGGTIGAAAATGTIFCTAAACGATA 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 TIPLECIACTEGRAPHATA AND ACTION ACCUED AND AND ACCURATE THE FRANCE AND THE FORMANCE AND THE FRANCE AND THE FORMANCE AND TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          402 TAAAUGGGAAGTATTACAAATGGAAGATGATGTGGTGATTTCATTTCAGTTAATGCTATG 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 462 TGTOCH GACHALITA HAAACHOTGAGGROGA IGTTGCHGAAAGAAGGATATAAAAG 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          522 ADPLICELATED TO THE LABORATION OF THE ACCIONANCE OF THE ACCION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           441 AUTHITTAFANTATTAATIGHTINACCICGAACACCCAGGGGAGGTCAGAACAGGAGTGC 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         501 APONATANYAAAAYAAPITAGAAAATGATACAAAATTATTGAAGTIGTGTGTAAAGAACA 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      642 10AA BIRAATA FADA FGABIIDAAAAATGITTRATTI CAAAAATTTTA TAGUTTTI ATGAA 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       762 CGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTGGATGATGATAA 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     822 ARCHOTHORGAN GATHOLA LAGAGAGTHITHGAAACAGAGAGAGGAGGAAAAAAGTAA - 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  741 AACTECTECAGACEGATTECTATAGAGAGTTTTGAAACACAGGAAGAGGCAGGAAAAAGTAA 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   882 COLIGATGAAGAGGTGAATGTAATTGCTGGAGAGAGTGCGAGTTAGGACTGTTATGAAGAG 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 10; Length 3266;
                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
TELECHONE: 512/418 (000
                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
CHAPPLICATION NUMBER: US/09/469.522
FULING DATE: ZZ Dect 1999
CLASSIFICATION: Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 0;
                                              MEDIUM TYPE: Froppy disk
COMPUTER: IHM PC COMPATIBLE
OPERATING SYSTEM: PC:FOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89.8%; Score 3006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SHOUPINCE DESCRIPTION: SEQ ID NO. 34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 4266 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALLORNEY/AGENT INFORMALION:
NAME: Hiblor, DAVID W.

    Unknown>

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 512/A74 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
SIMANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMALION FOR SEG ID NO. 44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 08;
                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7097
COMPUTER PEADABLE FORMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 4006; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ropology: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILLING DALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          test Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOKIATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09 469 522 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mery March
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
```

```
1161 TTTTCATATGCTTTATTGCGGGGGGCTCTTGAGGGTGTAATGGCAGATATAGCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      146.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1221 TACATCTCAGAATCTTGAITCTGGAACAGATTTGTCTTTCCCATGGATTCTGAATGTGCT 12H0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1401 IGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTAAACAATCAAAAGGAACGAAAAAGG 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1461 ACCAACTGATCACCTTGAATCTGCTTGTCCTCTTAATCTTCCTCTCCACAATAATCAAC 1520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1722 ATTGAAATCTACCTCTCTTTCACTGTTTTATAAAAAAGTGTATCGCCTATCTCCC 1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1782 GCTAAATACACTTIGIGAACGCCTICIGICIGICAGACGCAGAATTAGAACATAGATCATCIG 1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1842 GACCCTTTTCCACCACACGCTGCAGAATGAGTATGAGTCAGTGAGAGACACACATTTGGA 1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1761 GACCCTITICCAGCACACCCIGCAGAAIGAGIAIGAACICAIGAGAGACAGGCALLIGGA 1820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1821 CCAAATTAIGAIGIGIICCAIGIAIGGCAIAIGCAAAGIGAAAAIAIAAAA ITAAATT 1880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1182 TAAATCAGAAGAAGGATTATGCATTGAAALLITAGGAAACTTCTGAALGACAATT 1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1242 TITICATAIGICIITATIGGGGGGGGGCCCCTIGAGGGGGGAAGGGGCACATATAGGAGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1482 IGCATGGCTCTCAGATTCACCTTTATTGATCTTATTAAACAATCAAAGGACCGAGAAGG 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1662 TGTAAATTCTACTGCAAATGCAGAGACACAAGCAACTCAGGCTTCCAGACCAAAAAGCC 1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1902 CCAAATTA1GATGTGCTGCATGTAGGCAAAATGCAAAAAAAATATAAAATT 1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1962 CAAAATGATTGTAACAGGATACAAGGATCTTFPCTGATGCTGTTPAGGAGAGATTPAAAPG 2021
                                                                   942 TATCCAACAATTAATGATGATTTTAAATTCAGCAAGTGATCAAAACCTTCAGAAAATCTGAT 1001
                                                                                                                                                                                                                                                                        921 TTGCTATTTTAACAACTGCACAGTGAATCCAAAAGAAAGTATACTGAAAAGAGTGAAGGA 980
801 CCTTGATGAAGAGGTGAATGTAATTGCTCCACACTCCAGTTAGGACTGTTATGAACAC 860
                                                                                                  TITOCTATITITAAGAAGTGGACAGTGAATGCAAAAGAAAGTATACTGAAAGAGTGAAGGA
                                                                                                                                                                                                                                                                                                                                        TAINAGALACATCITIAAAGAAAANTITGCIAAAGCIGIGGGAACAGGGIIGIGGAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1122 TGGATCACAGGGATACAAACTTGCAGTTCGCTTGTATTACCGAGTAATGGAATCCATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1041 TGGATCACAGCGATACAAACTIGGAGTICGCIIGIAIIACCGAGTAAIGGAALCCAIGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TACATCTCAGAATCTTCATGTGGAACAGATTTGTCTTTCCCATGGATTCTGACAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1362 TAATITAAAAGCCTTTGATTTTJACAAAGTGAAGAAGTITLLALCAAAGCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1422 CTTGACAAGAAATGATAAAACATTTAGAAGGATGAACATGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1341 CTTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACAATCGAATGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1542 ACCAACTGATCACCTTGATCTGCTTGTCTTCTTAATCTTCCTCTTCTAGAATAALCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          981 TATAGGATACATCTTTAAAGAGAAATTTGCTAAAGGTGTGGGGACAGGGTTGTGTGAAAA
```

```
2142 AATAGTE AGALECT GAAAGCT LACAAGTERGE AGTERACET AGGATECTIGS 2201
                                                                                                                                                                                                                                                                                                                                                                     2181 ANDARDAAAAATGACTCOAAGATCAAGAAICTIAGTATGAATTGGTGAATGATTGGGAC 2249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23.). AAGIGCTGAAGGAAGCACCCCCTAAAGCACTGAAAAACTACCCTTTGATATTGAAGG 2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2181 JACTCAAAAAAGAAGAAATGAGGATCTCAGGACCTTGGTGGAGACTGTGAGGCT 2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2301 AUGIAIAIIITTITAATTIAACAIGAACACCCIIAGAAAATGIGOCCAICOTATCIACOTA 2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 22 CHITTGATGAAAAAAAAAAGAGIATATATATATATATATTATAAGTATAACTCGGTCTICAT 2081
                                                                                                                2 * 1 AATACCICAMATICCICGAAGCCCITACAAGTITCCIAGTITAACATICITIACGGATICCIGG 2120
                                                                                                                                                                                                                                                                                                                                       2261 AGGGAACATGTATATTTCACGGTGAAGAGTGGAIATAAAATTTGAGAAGGTCTGCCAAC 2261
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.26.2 NOONACAAAATGACTCCAAGATCAAGAATCTTAGTATCAATGGTGAATGATTCGGGGC 23.21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2.482 AAGTGCTGAAGGAAGCAACCTCCTAAACCACTGAAAAAACTACGCTTTGATATTGAAGG 2441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    246 AFTARGARGARGARGARGGARGTAAACATCTCCCAGGARAGTCCAAATTTCAGCAGAAAACT 2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2502 DO AGAAATGAGTTCTACTGGAAGAGGAAAAGCAGAAAATGATGATGGA 2561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24.21 GIGAGAAA EGACITETACITEGAACAGGAATGCAAAAAGGAAAAAATGAATGATAGGATGGA 2480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2562 TABUTCAAABAAGGAABAAAAAATGTGAGGACCTTGGTGGACAGTGTGTACACCT 2621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2822 TESSATIONITGICIOTORGAGAIGIGACIGIAIAACIIICGCAGGIICIGIIIAIGGCC 2681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2882 AMETITAALAFOTTOAGOTOTTITTGIGGATAFAAAAFGIGCAGAFGCAATTGITTGGGT 2741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2852 TAAATCCT60CATTTAAAAAGTFGTAGCAGATTGTTFCTTCCAAAGTAAAATTGCTG 2861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2842 - 1771 FTA FORTACHAAPAGGGCGFAAAGWGGGAAWGGGAATAAGCGAGGGGFGFGGG - 2921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2922 ASTANITIO OTICHILOTANGAIANAGOGAIGERICERICATTITATTATTAT 2981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2841 ANTACH HOCCHICTH LGTAGGA FATTAGGTGAPGT FFGCTGTPGTFFFFATTAAFTAAF 2900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2982 AIGIAIAITITIIAAITITAACAIGAACACCCIIAGAAAAIGIGITTITITITGEA 3041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2442 APPAGATEAAGCAGATGGGAAGTAAACATCTCCCAGAGTGCAAATTTCAGCAGAAAGT 2501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         274.2 SATTOTTANGOROTTGAAATGTTAGTGATGTTGTTATTATATAGAAGATTGAAAATGTGG 2801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4042. AAIGPATITEATIFIANTIONOPATINACEAAAATTATCCTGAAACTCTTCTGCAAAAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
```

```
3102 ATATTATTAGAAATTAGAAAAAATTACTAATTTTAGACATTAGATTTTATTTTAGTATT 3161
                                                                                                                                                                             3162 GGAATOTGATATAOPGTGTGOTTGTTTTTATAAAATTTGGTTTTTAAATGAGGGG 3221
                                                                                                                                                                                                                                                                                                                                                                              3222 GAACCAAAGTATAACCATATGATACTATGATACTGAAAGAGATTTTCATACTCAGAA 3281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3282 TGTAAAAGAACTTACTGATTATTITCTTCAACCTTATGTTTTTAAATGAGGATTATT 3341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: MODIFIED RETINORLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 10; Length 3223;
                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS: ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA;
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE. Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PU-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score scor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE DESCRIPTION: SEQ 1D NO: 32:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 22-Dec-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 32, Application US/03469522
Patent No. US20620151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGIH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <University of the control of the co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: P.O. BOx 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83.84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SHOUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ...2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 77210-4433
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Houston STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3342 GATAGT 3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3261 GATAGT 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-469-522:32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tuery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
                                                                                                                                                                                                                                        di i
                                                                                                                                                                                                                                                                                                                                      .:
Оу
                                                                                    q
                                                                                                                                                                                       ð,
```

0;																		
sd	401	461	521 497	581 ` 557	641	701	761	821 797	881 857	941 917	1001	1061 1037	1121 1097	1181	1241	1301 1277	1361	1421 1397
0; Ga	TTAGC        TTAGC	CTATG	AAAAC AAAAC	AGTGC        AGTGC	CAACA IIIII GAACA	ATGAA          ATGAA	CGATA	GATAA 	AGTAA 11111 AGTAA	AACAC 11111 AACAC	CTGAT	AAGGA  - - -  AAGGA	GAAAT	ATGCT        ATGCT	AACAT  - - -  AACAT	AGAAG +1+1+ AGAAG	CTGCT [111] GTGCT	GGCAA             GGCAA
×	TTTTA 	FT AATG	CAIAT FEFFE CATAT	AACAGG AACAGG	IGTAAA IGTAAA		TCTAAA  - - -   CTAAA	SATCAT	GAAAA	SITATG	SAAAAT	AGAGTG 	rerere           GTGTC	SAATCC TITTT	AATGAC BILLL AATGAC	TATAGC 	CIGAAT CIGAAT	GCAGAA          GCAGAA
Indela	TCACA:	TTCAG	AAGAAG  - - - -  AAGAAG	GTCAG 		TTATAC               TTATAC	ATCTT	1111G	CACCAC	GGACT 	CTTCA	TGAAA	AGGGT	TAATG	TTCTG	CCACA.	GCALL	VICAAA(                VICAAA(
0;	CTTGGA	TITCAI IIIIII IITCAI	19010A 111111 10010A	9606AG	TTGAAG	AAAATT  - - - -  - - - - - - - - - - - - - -	TTGAAA  - - -  TTGAAA	GATTAT          GATTAT	AGAGAA HILLI AGAGAA	CAGITA	ATCAAC ATCAAC	GTATAC	TGGGAC TGGGAC TGGGAC	ACCGAC                   ACCGAC	GCAAAC	TAATGC	ICCCAI IIIIII TCCCAI	GTTT7
smatches	AAGTTT 	IGGTGA         GGTGA	SCATGI	MCCCA TITILI MCCCA	SAATTA	ATTTCA 	2AGAGG 1-1-1-1 2AGAGG	ATGCAA             ATGCAA	NAACAC LITITI AAACAC	ACACTC         ACACTC	CAAGTG	AAGAAA               AAGAAA	MGCTG         MGCTG	IGIATI 	ATTTA 	AGGTTG	IGICIII 	FCGAAA          CGAAA
Misma	ATCTACTGAAATAAATTCTGCATTGGTAAAAGTTTCTTGGATCACATTTTATTAGC 	TAAAGGGAACTALTAGAAATGGAAGATGATCTGGGGATTTGATTT	ROTCYTGACHALITIALIAAACHCICACIGCIGIGCICAAAGAACCALAITHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	ARCESTATA POCONTA A PRETION OCTOGRANO CAGGOGAGGICA GAGGAGAGGAGA PER	APODATADPAAAADAACTAGAAAATGATACAAGAATTATTGAAGTTGTCTFTGTAAAGAACA ELELLELLELLELLELLELLELLELLELLELLELLELLE	FGAATGTAATATAGATGAGGTGAAAAATGTTTATTGAAAAATTTTATACCTTTTATGAA 	TTCFCTFGBACTFGTAACAFCTAATGGACTFCCAGAGGFTGAAAATGTFTCTAAACGATA 	GGARGAAATITAFCTIAAAATAAAGAICTAGATGCAAGATTATTTTGGATGATGATAA 1111111111111111	AACECTICAGACIGGITICIATAGACAGITITIGAAACACAGAGAAA ACGAGGAAAAAGIAA EELEELEELEELEELEELEELEELEELEELEELEELEEL	CCTTGA FGAAGAGEGAAFGTAATTCCTCCACACACTCCAGTTAGGACTGTTATGAACAC 	TATCCAA?AATTAATGATGATTTTAAATTCAGCAAGTGATCAACCTTCAGAAAATCTGAT TATCCAA?AATTAATGATGATGATTAAATTCAGCAAGTGATCAACCTTCAGAAAATCTGAT	TPCCTAFTTTAAPAACTGCACAGGAATCCAAAAGAAAGTATACTGAAAAGAGGGGA ELLEGELEGELEGELEGELEGELEGELEGELEGELEGEL	ATAGATACATCTTAAAGAGAAATTIGCTAAAGCTGTGGGACAGGTTGTGTCGAAAT 	IONALCANCANCALACAAN HOOAGHOGTIGIAH ACCAAGRAALGAAN IOCAGCTI EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE	AAATONGAAGAAGGATTATOGATTCAAAATTTTAGCAAAGTGTGGAATGACAAGAT EELLEELEELEELEELEELEELEELEELEELEELEELEE	TITICATA ESTOTITATES OF SOCIOTOTICA AGGING TATA ESCONOCATATAS CAGAAGININ THE	AYALCHCABAALCHGAHCHBAAYAGAFITGECHTHCCARGALLCHGAATGFGCT 	TTACAAAGTGATGGAAAGTTTTATGAAAGCAGAAGGAA HTTLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
; ;	ATTGG1               ATTGG1	GGAAGA FEFFE GGAAGA	ACTO10 	TTCACC	AAATGA 	CAAAAA	TAATG               AATG	TAAAGA TTTTTT	AGACAC LTTTT AGACAC	AATTO  - - - -  AATTO	TTTAAA TTTAAA	AGTGA/ HILLI AGTGA/	GAAATT	100A01   1   1   1   100A61	ATCCA1 +             A LCCA1	6T6036	100AAC	TTACA                      ACAA
175	ITCTGC          ICTGC	ACAAAT NCAAAT	I A I I A A		ACTAGA THEFT	IGAGGT IIIIII IGAGGT	AACATC             AACATC	TAAAAA TAAAAA TAAAAA	rrcrat              rclai	MATGT HILLI MATGT	JATGAT FILLE SATGAE	TGCAC HTTT	FAAAGA FFFFFFF FAAAGA	AAACT	ACGATT 	ATTGGC 	IGALIC ITILL IGATIC	TGATTT
onservati	VATAAA        VATAAA	WOTATE WILLI	1. IATIT	CCCAT	AAAACA 11111 VAAACA	ATAGA'	WITTST        	TATOT:	ACTGA HILL FACTGA	VGAGGT 	ALTAATO        NITAATO	FAACAA 	ATCTT	ACCALAC	NGAAGA 		AAICI IIIIII XATCT	TAATTTAAAAGGCTTT 
10.7	ACTGA 	GGGGAA FITTI	1116AC	TTATA	ATAGC'A	TGT AAT	TTGGA	SAAATI	OTTCAC 	GATGAA	PAACAA FELLI PAACAA	TATTT1  -	GGATAC	ICACAC ICACAC	TCAGAA LLTTTT	ATAL	ICTCAC   ITTLE	TTAAA/ 
4006													$\vdash$ $ \vdash$					
rehes	142	402 478	46.2 4.3H	5.22 4.98	785 785	642	707	762	748	8878	942	1002 978	1062	1122	1182	1242	1402	1 462
Σ	S 3	75 E	5 B	92Y Leb	97	à ŝ	25	5 G	5 G	5 🕏	5 8	5 3	65 135 135 135 135 135 135 135 135 135 13	5.7	40 40	5 3	57 del	5 2

1542 ACCAACTGATCACCTIGAATCTGCTGTCTTAATCTTCTCTCTCTGCAGAATAATCACAC 1601 1902 CCAAATTATGATGTGCATGTAGGATATGCAAAGTGAAGAATATAGACTTAAATT 1961 2118 AATAGGGCAGATGGTGGAAGGGCGTTAGAAGTTGGTAGGTGAGGCTTAGAGTTGCTGG 2177 2178 ACCCARCALCTATATTICACCCTCAACACTCCATATAAAATTICACAACATTICCAACA 2237 2262 ACCANCANANATGACTCCAAGATCAAGAATCTTAGTATTAGTGAAATGATTGGTGAAATGATTGGGAAT 2321 2358 AAGIGCIGAAGGAAGCAACCCLOTTAAACCACIGAAAAAATIAGGTIIIGATALIGAAAG 2417 2442 ATCAGATGAAGGAGAGGAAGTAAACATGTCCCAGGAGAGTGGGAAATTTGAGGAGAAGT 2501 1482 TGCATGGCTCTCAGATTCACTTTTATTTGATCTTATTAAACAATCAAAGGACCGAGAAGG 1541 1662 PGTAAATTGTACTGCAAATGCAGAGACAAGCAAGCTGAGGGTTGGAGAGGGGAGAGGC 1721 1638 TGTAAATTGTAGTGCAAALGCAGAGAGAGCAAGCLCAGCCLLGCAGACCAAAAAAGC 1697 1722 ATTGAAATCTACCTCTCTTTCACTGTTTTATAAAAAGTGTATCGGGGTAGCCTATCTCCG 1781 1782 GCTAAATAGAGTTTGTGAAGGGGTTGTGTGAGGAGGCAGAA FLAGAAGATA FGALGTGT 1841 1818 GACCCTTTTCCAGCACACCCTCCTCCAGAATGAGTATGAACTCAGAGACACATTTGGA 1877 1878 CCAAATTATGATGTGCTTCCATGTATGGCATATGCAAAAGTGAAGATATAGAATTTAAAATT 1937 1962 CAAAATGATIGTAACAGCATACAAGGATGTTCCTCATGCTGTTCAGGACACATTCAAACG 2021 2022 TGTTTTGATCAAAGAAGAGGAGTATGATTCTTATTATAGTTCTTATAACTGGGTCTGAT 2081 2082 GCAGAGACTGAAAACAAATATTTTGCAGTATGCTTWYAMMAGGCCCCTAMMTTGTMAG 2141 2058 GCAGASACTGAAAACAAATATITTGCAGTATGCTTCCACCAGGCCCCTTACCT CTCACAC 2117 2202 AGGGAACATCTATATTTCACCCTCAAAAAGGAAAAHTTCAGAAAGGAAAC 2261 2382 AAGTGGTGAAGGAAGCAAMMTTMTAAAGGAGTGAAAAAAAMAMMTTTGATATHAAAMG 2441 2418 ATCAGATGAAGGAAGTGGAAGTAAAATGTGCCAGGAGAATGTGAATTGAAATA 2477 1422 CTTGACAAGAGAAATGATAAAACATTTAGAAGGATGTGAAAALGGAATGAAALGGGT 1481 1518 ACCAACTGATCACTTGAATCTGCTTGTCTCTTAATCTTCTCTCAGAATAATGACAC 2298 ITCTGAGAAGTTCCAGAAAATAAATCAGATGGAAGGAAGGGGAGGGGGGGTGAAAAG 1602 TGCAGCAGATATGTATGTGTGTGTAAGATGTCTAAAGAAAAAAGATTTGAACTAGGG , ОУ ô d ò g ò 3 ò a ò 9 ĉ a  $\overset{\circ}{\sim}$ υþ ò q ò q े d οy 9 ς 3 S ò 2 ŝ 9 ö q ें 3 ŝ

```
PPCAGAAATGACTICTAFIPGAAGACGAAAAGGAAAAATGAATGATAGCATGGA 2561
                                                                24.28 - 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 
                                                                                                                                                                                                                                              2962 TACCTCAAACAAGGAAGAAAATGAGGATCTCAGGAGCITGGTGGACACTGTGTGACACT 2521
                                                                                                                                                                                                                                                                                                              26.22 CTGGATTCATTGTCTCTCACAGATGTGACTGTATAAGTTTTCCCAGGTTGTGTTAATGGCC 2681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2582 ASATIIAAFAIGIICAGPPPIITIGIGAATAAAAAIGIGAGAIGPATIFETIGGGF 2741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2742 GATTCCTAAGCCACTTCAAATGTTAGTCATTGTTATTATATACAAAGATGTTGTG 2801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FAAATOOTGOCATTTAAAAAGTTGTAGOAGATTGTTTTOOTAAAGTAAAATTGCTG 2861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      286.2. TOCITIALGOALAM JAAGAA MOODOMAGAGAGAGAGAGA MATAAAGAAAQAAGATGATALGI 2927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2922 ACIACTITGCCTICITITGIAGCAIAFAGGIGAIGTITGCCCTGGGGTATAATITAT 2981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2982 AIGIAIATITITITAAITIAACAIGAACAGGGTTAGAAAATGTGTGCTATGTTGCA 3041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8942 AATGCAATTIGATTIGATTIGGCGGATTGAGCAAATTATGCTGAAGTGTGCTGCGGAAAAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8-18 AATGCAATIIGALIGACICOOOATICAOOAAAIIAIGAAAATIGIGIGIGIGAAAAAIGG 3077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3102 AIAITATTAGAAAITAGAAAAAATTAGTAATTTAGAATTTAGATTTTAITTATTTAGTATT 3161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3AAGCAAAGTATAACCATATGATAGTATGATACTAGTGAAACAGATTTCATACCTGAGAA 3281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4134 GAAGGAAAGTATAACCATATGATATATATAGTAAAAGAGATTTGATAATAGTAAA 3257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3282 TSTAAAAAAAAACTTACTGATTATTITGTTCATCCAACTTATGTTTTAAAATGAGGATTATT 3341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2718 JALLOCIAAGCCACITGAAALGITAGIGATIGITATAGAAGATIGAAAAWGITGIG 2777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 30, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Hong Ji
Hu, Shi Xuo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1442 INTAGE 4447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SATAGI 4423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HS-09-469 5.22-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
```

PROFEINS

NUMBER OF SEQUENCES: 51

```
342 ATCTAGTGAAATAAATTGTGGATTGGTGCTAAAAGTTTCTTGGATCACATTTTTATTAGC 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            702 HERMARAGAMPEGAAAFEGAAFEFFAAFFGGAAFPFGAGAGGFFFGAAAAFFGFFFAAAGGATA 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  387 ATCIACTGAAATAAAIICIGCAIGGIGCIAAAAGIIIGIIGGAAGAGACAGAITIITAIIAGC 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     582 ACGGATAGCAAAAQAACTAGAAATGATACAAGATTATTGAAGTTCTCTGTAAAGAACA 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  687 IGANIGIAATATAGATGAGGTGAAAAATGITTATTICAAAAATTITAATACCTTITATGAA 746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 747 IICIGIFGAAFIGIAAAAAAFGGAAGIIFGAGAGIIGAAAAIGIIIGIAAAGGAIA 808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             762 PRANGANATTATRICTIANAANTAANGATCIACAIGCAAGAITATITIGGAIGAIGAIAA 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           452 HOFFCTEGACTATITIATIANACICTCACCICCCATGITGCTCAAAGAACCATATAAAAC 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                642 TGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATACCTTITATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 3006; DB 10; Length 3392;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89.8%; Sco...
100.0%; Pred. No. o.
..o. û; Mismatches
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PEFFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                    OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION: SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                 COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Hibler, David W.
REGISTPATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                            FILING DATE: 22-Dec-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
TELEPHONE: 5/2/4/8-4000
                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 3392 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                       CHMOHATHOUS
                                       STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHAPACTEPISTICS:
                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 100.0
Matches (Qūb; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear
                                                                                                                           77210-4433
                                                                 CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                   FILLING DATE:
                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ę,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
```

.. O

30 N + 30 0	001 046 061 106	12 16 18 22	241 286 301 346	8 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		601 646 661 706	721 766 781 826	98 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
AATUCHCAGACIGAHCHATACAGHTHGAAGACACACCCCCCGAAAAAGTAA HILLIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	TATCCACVANTTANGGANTTTANATTCAGNAGTGATCANGCTTSAGAAAALGIGATTTANGCACCACCACACACACACATTANATTCAGNAGTGATCACCACCACACACACACACACACACACACACACA	HATAGGA ACAPPITTAAAGAGAAAPTTOGTAAAGGIGGOGGGGGGGTTOTTOGGAAAPTTOGTAAAGGIGGOGGGGGGGTTOTTOTTTTTTTTTTTTT	HAAALCAGAAGAACGAHALCCAHACAATCAAAATTTAGCAAACTTCTGAATGACAACATTTTAGCAGAACTTCTGAATGACAACATTTTAGCAACAACAACAACAACAACAACAACAACAACAACAACA	TACA 1-1- 1-1- 1-1- 1-1- 1-1- TAAT	CTEGACAGGAAA IGATAAAA TITTAGAAGGATGIGAACATGGAATCATGGAATCCCT THEFTELLITTE	42 APPAACIGAICACTIGAATCIGCTICTICICCICTICACTCTCCCCGGAATAATCACG 160 11111111111111111111111111111111111	TOTAAATTCTACTGCAATGCAGACAAGGCCCCCCGGCCTTCCGGGCCCCGAAGCC	OTTAMATACATTEGRAMOCTICTEGREGACIOCEGAGANTAGAMENTEGACATATEGA OTTAMATACATTEGRAMOCTICTEGREGACAGAATTAGAACATATETTI OTTAMATACATTEGRAMOCTICTEGREGACAGAATTAGAACATATEGA OMOCTITTECAROACACCTGCAGAATGAGTATGAACTATAGAACATTTEGA TITTITTETTITTI
	942 987 1002 1047	1107 1122 1122 1167	1182 1227 1242 1287	1302 1347 1362 1407	1422 1467 1482 1527	1542 1587 1602 1647	1562 1707 1722 1722	1782 1827 1842 1887
6 de 6 de	5 4 5 4	5 4 5 8	5 4 5 4	5 2 5 2	\$ <del>2</del> 5 <del>2</del>	5 5 5 5	3 2 3 3	5 5 5 5

oy op	1902	CCAAATTA IGAIGIGI IOMAIGIA IBGGA IA IBCAAAGI GAAGAATA IAGAATI IAAAA II IAAAA II IAAAATTA IGAIGIA IGAIGIA IGAAATTA IGAIGIA IGAIGIA IGAAAGAAAAAAAAAA	1961 2006
QV DP	1962 2007	ATTGTAACAGCATACAAGGATCTTCCTCATGCTGTGTCAGGAGACACTTCAAAC 	
çy GD	2022	IGTTTTGATCAAAGAAGAGATATGATTGTATTATASHATTCTATAACTCGSTG 	
Oy Dp	2082	OCAGAGAG IGAAAAGAAA FALTITIONASTATOCI FOTAOTAOOOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTO	2141
	2142	AATACCTCACATTCCTCGAAGCCTTACAAGTTCCTAGTTCACCCTTACGATTCCTGG	2201 2246
δ q.	2202	AGGGAACATCTATATTTCACCCTGAAGACTCCATATAAAATTTCAGAAGSTCTGCCAC 	2261 2306
Oy Db		552. ACCAACAAAAATCACTICCAAGATCAAGAATCTTAGTAATTGSTGAATCATTGSTGATT 1935AC 2321 	2321 2366
oy a	2322	TTCTGAGAAGTTCCAGAAAATAAATCAGATGHTATGTAAAAGGGACGGTGGGTGAAAAGHTHTHTHTHTHTHTHTHTHTHTHTHTH	2481 2426
oy Op	2482	AAGTGCTGAAGGAACCCTGCTAAACCACGAAAAAAAAAA	2441 2486
oy op	2442	ATCAGATGAAGCAGATGGAACTAAACATCTCCAGGAGATTICCAAATTTCAGGAAAACTATCAGATGAAAACTAACAGAGAAGAAGGAAG	2501 2546
o cy	2502	GGCAGAAATGACTTCTACTCGAACACGAATGCAAAAGCAGAAAATGAATG	2561 2606
yo O	2562 2607	TACCTCAAACAAGGAAAATGAGGATCTCAGGGCCTTGGTGGACACTGTGTCTCTCTC	2621 2666
O.y D.b	2622	CTGGATTCATTGTCTCTCACAGATGTGACTGTATAACTTTCACAGGTCTGTTTTTTTT	2681
yo du	2682	ACATTTAATATCTTCAGCTCTTTTTGTGGATATAAAATGTGTAGAGAGAATTGTTTGT	2741 2786
S G	2742	GATTCCTANGCCACTTGAATSITANTCATTSITATTIAIACAAGATTSAAATTTTSIS 	2801 2846
Oy Db	2802 2847	TAAATCCEGCCATTTAAAAAOTTGFAGCAGATTGFT FCFTCTFCCAAAGTAAAAFTGCTG FELLIFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	2906
S S	62	TGCTTTATGGATAGTAAGAA FEELLEELEELEELEELEE TGCTTTALGGATAGTAAGAA	2921 2966
o o	22	ACTACTTTGCCTTCTTTGT 	2981 3026
Oy	$\sim$	ATGTATATTTTTTAATTIA	~

```
3282 TGTAAAAGAAGTIACTGATTATTTTGTTGATGCAAGTTATGTTTTAAATGAGGATTATT 3341
1012 AATIGCAALTIGALTIGACTIGOOGATIFOAAATFATOOFIGAAAAAAAAAAAAAAAAAGG 3101
                                                                                                               3-87 AATGCAATITGAITGACTGCCCATTCACCAAATTATCTGAAATGTTGTGAAAAAATGA 3148
                                                                                                                                                              3102 ATAITATTAGAAATTAGAAAAAAATTACTAAITITAGACATIAGAITITALIATA 3161
                                                                                                                                                                                                          3222 GAAGGAAAGTATAAFFATTATTATTATTATTATTAGTGAAAFAGAATTTFATTATFAGAA 3281
                                                                                                                                                                                                                                                                                                                                                                                                 3.27. GAAGGAAASTATAAATATATATATATATATATATAAAASASAATTISATATSAAAA 33.28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zhou, Yunli
IIILE OF INVENTION: MODIFIED PETINGELASTOMA THMOF SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                              SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Armoid, White a Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AFFLICATION NUMBER, U3/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C-MPOTER READABLE FORM:
MEDIUM TYPE: Floppy disk
C-MPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LET.ECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 44, Application 0S/09469522
Parent No. 0S20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRUTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGIH: 3161 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY ZAGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO. 44: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHRRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANI: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shi-xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUNIRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3342 SATAGE 3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 CH 3 SATAGE 4392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09 469-522 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SESOLI 14
```

```
..
..
                                                                                                                                                                                                                                                                                                                   121 PPSRASSAPTUSECTETESTERSETTERSTITTGASAAAASAAAAAAAAATTTTACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 GOAFTATOTO AGAAATTAAAGATAGGAGATGTGTGAGAGAGAGAGAGGTTGGTTAACTTGG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 GCATTATGTCAGAAATTAAAAGATACCAGAICATGTCAGAGAGAGAGGCTTGGTTAACTIGG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 GAGAAAGTITCAICIGIGGAIGGAGIAIIGGGAGGIIAIAIICAAAAAGAAAAAAAGCAACIG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 TGGGGAALCIGIALCIIIAILGCAGIGACCIAGICGAAICTACTGAAATAAAIICT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 GCATTGGTGGTVAAAAGTTTTGTTTGGATGAGATTTTATTAGGTAAAGGGGGAAGTATTAGAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 APSSABASAFGATOTESTERATTORITTORSHIANIGCIALGIGTCCTTGACTALITTATT 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481 AAACTUTCACCICCCALGITGGTGAAAGAACCATATAAAACAGGTGTTATACCCATIAAT 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541 GETTPAPPIPGAAPAPPPAGEPPAGGIPAGAAPAGGAGIGCAGGGATAGGAAAAPAACTA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601 GAAAATGAIACAAGAAITAITGAAGIICICIGIAAAGAACAIGAAIGIAATATAGAIGAG 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661 GEGNAAAANSTITATITOAAAAAIIITATAOOLEETATGAAFETOITGEGAOTEGEAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721 JITAATOTACHOJAGAGGILGAAAATOTI QUAAAGGATAGGAAGAAATTTATCITAAA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781 AATAAAGATCTAGAIGCAAGAITATITIIGGAICAIGAIAAAACICTICAGACIGAIICI 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 595 AATAAAGATCTAGATGCAAGATTATTTTGGATCATGATAAAACTCTTCAGACTGATTCT + 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901 GTAATTCCTCCACACACTCCAGTTAGGACTGTTATGAAGACTAFGCAACAACAALAAFGATG 940
                                                                                                                                                                                                                                                                                             41 GAAPPPPRESTANDSOLGSCSSCSSCSCSTUTAASAGGACGAGAGAGAGAGAGAGAGAGAGAGGGGCSC 120
                                                                                                                                                                                                                                                                                                                                                                                         415 GAAAATGATAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATALAGATGAG 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               475 GTGAAAAATGTTTATTTTGAAAATTTTATACGTTTTATGAATTGTGTGGACTTGTAAGA 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                715 CTANTICCTCCACACACTCCASTIAGGACTSITATGAACACTATCCAACAATTAATGATG 774
                                                                                                                                                              Indels 186; Gaps
                                                                                                                                                                                                     841 ATAGACAGTTTTGAAACACAGAGAGACACCACGAAAAGTAACCTTGATGAAGAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 10; Length 4161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ::
O
                                                                                                                                                              u; Mismatches
                                                                                                            Score 2965;
Pred. No. 0;
                   LOCATION: 7..2397
SEQUENCE DESCRIPTION: SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     336 -----
                                                                                                         ñx 5*:
94.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     336 -----
                                                                                                                                                            Matches 3161; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            336
NAME/KEY: CDS
                                                                                                                                 Best Local Similarity
                                                                   US-09-469-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 설
                                                                                                                                                                                                                                                  ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          님
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ्र
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
```

6	0	0	c <del>e</del>	0 4	o <del>.</del>	c <b>~</b>	O 4*	o <del>«</del>	C 4	⊃ <b>4</b>	⊃ <del>4</del>	o ₹	O 4	⊃ <del>&lt;</del>	o <del>4</del>	o 4	0 4	0.0
102		114 954	120	126 107	132	138	144	150	156	162	168 149	174	180 161	186 167	1920 1734	198 179	204 185	210
TAAATTCAASAASTGAACOTTCAGAAAALGTGATTCCAA FELFELFELFELFELFELFELFELFELFELFELFELFELF	GEGAA CCAAAAGAACEEEEEEEEEEEEEEEEEEEEEEEE	GADAAATHOOTAAAGCHOTGGACAGGGTOTGTGGAAATTGGATGAGGATAGAAA TITHTTHTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	CTEGRATICULTIGIATIAC CARITATIGAATCCATGCTTAAATCAGAAGAACGA 	CCALICAAAATTTAGG HILLITILITIGHTAGG	ordiorottettidabottotaaroperaratatadeacadagatetedaatettidat 13 ELLETTETTETTETTTTTTTTTTTTTTTTTTTTTTTTT	POPGAAVAGATTGECTITCCCAFGATGTCAAGGTTAATTAAAAGCTTGAT HEEFILEELEELEELEELEELEELEELEELEELEELEELEELEE	HTACAAAGIGALGGAAAGIT HTILLIHHHHHHH ITACAAAGIGGAAAGIT	TTAGAAGGATGTGAAG TTTAGAAGGATGTGAAG	TTGATCTTATTAAA 	TOTAL HELLETT AND TOTAL	POLICE GLAACATC LOCAAACAAAAAACE LOCACTACOCTORAAALI CTACTGOAACE FILLER LELETER ELETER LELETER LE LE LE TORCEGEAACA COAAACAAAAAAAAACE LOCAACTACGOCTICTAAATECTACTGOAAAT	OPAGARA PARA PARA PARA PARA PARA PARA PAR	PAPTOTETTIA AAAAAO OTA POOTA OO ATTOTONOOTAAA AGACTTIGTAAA ELLEETTITTITTITTITTITTITTITTITTITTITTITTITT	CONTITIONAL CHARACACTAGAATTAGAATATATCATCHGGACCTITTGCAGCACACC 	5] CTGCAGAATGAGTATGAACTCATGAGAGACAGCATTTGGACCAAATTATGATGCTTCC 111-111111111111111111111111111111	A IGTA LOGYATA LOGAAAG I GAAGAATA I AGACUTAAAT I CAAAA I CATAGAAT I LITTITTITTITTITTITTITTITTITTITTITTITTITT	TAPAARATCITECTPATGETGTTETTTTTTTTTTTTTTTTTTTTTTTTTTTTT	GARTATGATTGTATTATAGTGTGTATAAGTGGGGTGTTGATGCAGGGAGAGGAAAAA
136.1	10.2.1 8.45	108] 895	1141 955	1201	1261 1075	1321	1.88.1	1441	15:01	1561	16.21 14.45	1681	1555	1801 1615	1861 1675	1921	1381	2041
<i>λ.</i> 4	भू <i>ब</i>	<u>ک</u> ع	는 글	्र १५ - इ	ध्य <b>व</b>	रू ह		<u> </u>	<u>≥</u> ÷	<u> </u>	۲. <del>غ</del>	± 4	£	γ. φ	<u> </u>	<u>ئ</u> جَ	K 2	λ,

qq	1855	GAGTATGATTGTTATAGTATGTATAAGTCGGTCTTCATGCAGAGACTGAAAGAAA
OY	2101	ATTITIGEACHAIGE TICFACAGACACAGACHACH IGEACAATACCTCAATH ICCLOA - 2160
dq	1915	ATTTGCASTATGCTTCCACCCCCTACTTGTCTTCTTCTCACCACACTCCTCCACTCTCTCCACTCTCTCCACTCTCTCCACCA
Ç	2161	ACCCUTACAAGITTCCTAGITCACCITACCCATACCTCGAGAAAAAACATCTATATTCA 2220
qu	1975	ACCCTTACAACTTTCTACTTCACCTTACCATTCCTGAGGGAACATTTTTTTT
ŝ	Taga	COCCEGARGACECCATATAAATTECAGAAGGETTGGCCAACAACGAACAAAGATGAA 2280
qq	2035	CCCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTGGCAACAACAAAAAAAA
ς	2281	ACATCAACANTOTTACTAACAATTOCTCAATCATTOCCOCACTTOTCACACACTTOTACTTOTACACACAC
ଜୁପ	2095	AGAICAAGAAICITAGIAICAATUGIGAAATCATICGGGACITCTGAGAAGITCCAGAAA 2154
ò	2341	ATAAATCAGATGGTATGTAACAGGGACGTGTGTAAAAGAAGGTGAAAGAAA
ପ୍ରପ	2155	ATAMATCAGATGGTATGTAACAGGGACGTGTGCTGAAAGAAGTGCTTGAAGGAACTAAC 2214
ΟŅ	2401	CCTCCTAAACCACTGAAAAACTACGCTTTGATATTGAAGGATCAGATGAAGGAGGGA 2460
qo	2215	COLOCIAAACACISAAAAACIACCIIISAIAIIsAAGSAIGAGAIGAAGCAGIGA 2274
ολ	2461	AGTAAACATCCCCAGGAGGCCAAATTCAGCAGAAACTGCGCAGAAATGACTTCTACT 2520
qq	2275	AGTAAACATCTCCCAGGAGAGTCCAAATTTCAGCAGAAACGGGAGAATGACTTCTACT 2844
Ωy	2521	CGANCACGANTGCANANGCAGANANTGANTGATGCATGCATACCTCANACANGGACAG 2580
qc	2335	CGAACACGAATGCAAAAGCAGAAATGAATGATGATGATGGATG
ογ	2581	AAATGAGATCTCAGACCTTGGTGGACACATGTTTTTTTTT
qq	2395	AAAIGAGGATCTCAGGACCTTGGTGGACACTGTGTACACTGTGATTCATTGTCTTCA 2454
οy	2641	CAGATGTGACTGTATAACTTTGCCAGGTTCTGTTTATGCCAGATTTAATATGTTGACT 2700
qa	2455	CASATGIGACIGIATAACITICCCAGGIICIGIIIAIGGCCACALHAALAHCHICAGCT 2514
ò	2701	CITITGEGGATALAAAA1GFGCAGATGCAA1TGITTGGGGTGATGCTAAGCCACTGAA 2760
ପୁଣ	2515	CTITITOTOGATATAAAATGTGCAGATGCAATTGTTTGGGTGATTCCTAAGGGAGTTGAA 2574
Οÿ	2761	AIGTAGTCATGTAITTATACAAGATEGAAAATCTTGTGTAAATGCTGCCATTTAAAA 2820
qu	2575	AIGTIAGICATIGITATIATACAAGATIGAAAATCTIGIGIAAATCCTGCCATTIAAAA 2644
OY	2821	ACTICITATION OF THE STREET OF THE STANDARD OF STREET OF THE STREET OF TH
qd	2635	AGTEGTAGCAGATTGTTGCTCTCCAAAGTAAAATTGCTGTGTTTATGGATAGTAAGA 2694
ογ	2881	ATGGCCCTAGAGTGGGGAGTCCTGATAACCCAGGCCTGTCTGACTTTGCTTTTTG 2940
qu	2695	ATISSCOPTAGAGITGGGAGTGCTTGATAGCCTGTCTGACTTTTGCTTTTTG 2754
0,	2941	TAGCATATAGGTGATTGCTCTTGTTTTATAATTAATATATAT
Оb	2755	TAGCATATAGGTGATGTTTGTTTGTTTTTTATTATTATTATTAT
οy	3001	AAGATGAACACCCTTAGAAAATGLGTCCTALCTACTATCTTCCAAATGCAATTGATTGACTG 40k0
qq	2815	AACAIGAACACCCTTAGAAAATGIGCCTAICTATCTICCAAATGCAATTIGATTGACTG 2874
ò :	3061	061 CCCATTCACCAAAATTATCCTGAACTCTTCTGCAAAAATGGAATATTATTAGAAATTAGAA 4120
QCI	C/97	CCCATICACCAAAAITATCOTGAACTOTTOTGAAAATGGATATTAGAAATTAGAA 2934
ολ	3121	AAAAATTACTAATTTACACATTAGATTTATTTACTATTGGAATCTGATATACTGT 4180

```
.
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nan
∴
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                            널
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        يَ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                      Ē
                                                                                                                                                                                                                                       흔
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                          3181 GCTTG111TAIAAAAIT1TGCTTTTAATTAAATGCTGGAAGCTATAAGGTATAACATA 3240
                                                                                                                                                                                                                                                                        2935 AAAAATTACTAATTTTACACATTAGATTTTATTTTACTATTGGAATCTGTATACTGTGT 2994
                                                                                                               3241 IGATACTATCATACTACTGAAACAGATTICAIAGCICAGAATGTAAAAGAAACTTACTGAF 3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches 231; Indels 36; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 NACOTEMENT OF TRANSPORTED SABABACTOS CALCACTOR CONTROL SOCIONAL SOCIONAL SOCIONAL SOCIAL SO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: MODIFIED PETINORLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      87.0%; Score 2911.4; DB 10; Length 3383; 92.1%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3.4.01 (ALLITICATOCAACITTATGITTITTAAATGAGGATTATTGATAGT 3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALIS TATITIVITGATCCAACTIAIGITITIAAATGAGGATTATTGATAGT 3161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFIWARE: Patentin Release #1 0. Version #1 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US 204 444 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCOURNE DESCRIPTION: SEQ 1D NO: 48:
US UP 469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                      Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CELESCOMMUNICALION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DAIE: 22-pec-1999
CLASSIFICATION: CORROWNERFOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 48, Application 78/29469522
Patent No. US2002051461AL
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 512/418-3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 3383 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: <Unknown>
Altokney/Agent information.
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7..2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C.MPULER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shi - Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Special Contract
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 4116; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LON'ATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME, ZKFY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLECANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-469 522 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80 SECTION 18
```

```
961 AGGACTGTTATGAACACTATGCAACAATTAATGATGATGTTAAATTGAGGAAGTGATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1045 CTCAAAAAGGATGAAGGATATGTATGTIIAAAGGAAATTTGGIAAAGCIGLGGGA 1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1105 CAGGGITGTGTGGAAATTGGATCACAGGGAIACAAACITGGAGITGGGTTGIAITACGGA 1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 CPGGAGGACPIGCPICTICGFCAGGCTTGAGTTTGAAGAAGAAGAAGAAGAAGAAGAAGTTTAGT 180
                                                                                                                                                                 121 CCGGAGACTCTCTCTCTCAGGTTGAGTTTGAAGAAACAGAAGAACAGAATTTTACT 180
                                                                                                                                                                                                                        241 GAGAAAGITICAICIGIGGAIGGAGIATIGGGAGGIIAIAIICAAAAGAAAAAAAGAAGIG 300
                                                                                                                                                                                                                                                                                                                                                               361 GCATTGGTGCTAAAAGT----TTGTTGGATCACATTTTTATTAGCTAAAGGGGAAGTA11 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 417 ATAAATGGAAGATGATGTGGATTTGATTTCAG11AATGGTATGTGTGCTTGACTATTT 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421 GATACTAGTACCAAACTTGATAATGCTATGTCAAGACTGTTSAAGAAGTATGATGTATTG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       477 TATTAAACTICTCACCTCCCATGTTGCTCAAAGAACCATATAAAACAGCTGTTATACCCAT 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481 TITGCACTCTFFAGFAAATFRRAAAGGAFATGTGAACTTATATATTGACACAAVGCAGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541 ACTICCATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGATAACHTT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       625 gymenem aaacaa pattaatteyaatayaatta (asattaataaaa)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781 AATCTTICTAAACGATACGAAGAATTTATCTTAAAAATAAAGATCTAGATGGAAGATTA 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               805 TITTIGGALCATGATAAAAGTGI IGAGAGTGAIICIA AGAGAGTITI GAAACACAAGA 864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         925 AGGACTGITAIGAACACIAICCAACAAIIAAIGAIGAITIIAAAIICAGCAAGIGAICAA 984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                578 -----GTGCACGGATAGCAAAACAACTAGAAAATGAT-----ACAAGAATTATTGAA 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661 AIGCIAIGICCTIGACIALITIAIIAAACICTCCCCAIGIIGCICAAAAAAACA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   685 TEFFATACTETEPATGAATTCTCTTGGACTTGTAACATCTAATGGACTTGCAGAGGTGGAA 744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  745 AATGITICIAAACGATAGGAAGAATIIAIGITAAAAAIAAAGAIGTAGAIGGAAGAIIA 804
                                                                                                                                                                                                                                                                                181 GOATTATION GAAATTAAAGATACCAGATCATCACACACAGACCTTOOLLAACTTGC
                                                                                                                                                                                                                                                         537 TAATGGTTGAGGTGAAGAGGGAGGTGAGAAGAGA----
```

1200,	1224	1284	1344	1404	1464 1500	1524 1560	1584 1620	1644 1680	170 <b>4</b> 1740	1 <b>764</b> 1800	1824 1860	1884 1920	1944 1980	2004 2040	2064 2100	2124	2220	2244
	GFAALGBAALCA ESCHAAAFGAAAAGAAGAAGA FALCCA II'AAAAAHTI TAGAAA HILLIH HILLIH HILLIH HILLIH HILLIH HILLIH HILLIH HILLIH HILLIH BIAALGGAATCATGATAAATGAGAAGAAGAAGATTATGGAAA	CTTCTGAATGACAACATTTTCATATGTCTTTATTGGCGTGCGCTCTTGAGGTTGTAATG	GYAYATATAKABAKATACITCAGAATCITGATICITGGAACAGATTITGTCTITGCG 	DGALPERGAARGIOCHTAATHAAAAGOCHTIGAITHTTACAAAGUGALGGAAAGTETT HELLELLELLEHTELLEHTHILIHHHHHHHHHHHHHHHHH	ATCAAAGCAGAAGTTGACAAGAGAAATGATAAAACATTTAGAAGGATGTGAAGATTH HILIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	PJAATGATGGAATGGCTTGGATGGGTCTGAGATGAGCTTTATTTGATCTTATTAAAGAA 	TCAAAGGACGAGAACGACTGAGCTGCACCTTGACTGTGTGTCCTTGTTGTCCTTTGCTTTGCTTTGCTTTGCTTTGCTTTGCTTTGCTTTGCTTTGCTTTGCTTTGTTTTTT	CTCNAAATAATGACACACGAGCAGATGTATGTATGTCTGCTGAAGAAA 	AAAGGTTCAACTAGGGGTGTAAATTCTACTGCAAATGGCAGGGGAGGGGAGGAGGAGGGGGGGG	HEFTAGACCOAGAAGCAHGAAATGTAGCICICITTCACIGITTTATAAAAAAGIGTAT HEFTI III TELLI HELLI HELLI HELLI HELLI HELLI HELLI HELLI HELLI HELLI HELLI TECTAGACCOAGAAGCATGAAATGTACGTCTTTCACTGTTTATAAAAAGGTATA	OBECTABLETTETT COBECTAAATACACTTTGTGAACBCCTTGTGTGTGTAACCCAGAA LELELETTETT TETTTETT TETTTETT TETTTETT TETTTETT TETTTETT TETTTETT TETTTT TETTT TETTT TETTT TETTT TETTT TETTT TE	TIAGAACATAICATCIGGACCTITICAGCACACGCIGGAGAATGAGTAIGAACIATG 	AJAGACAOPTALI LOBACCAAA HAHGA IGH CCATGTATGCCATATGCAAAGIGAAG FELLELLE LELET HELLELLE HELLET HELLE HELLET HE	AATATAGACTTAAATTCAAAATCATTGTAACAGAAAAAAAGAATCTTCCTCATGCTGTT  - - - - - - - - - - - - - - - - - -	CAGGAGACAFICAAACGTGTTTTGAFCAAAGAGGGGGGTATGATCTATTATAGATTTC 	TATAN TOOGICI MATOMAGAAN MAAACAAATAITINGCAGTATON LOOGGGGG TITTITTITTITTITTITTITTITTITTITTITTITTIT		OCTIACOSATICCIOCACOSACATOTATATITCACOCOTGAAGACICGATATAAATI
1141	1165	1225	1285	1345	1405	1465	1525	1585	1645	1705	1765	1825 186.1	1885 1921	1945	2005	2065 2101	2125	2185
4:1	5 3	\$ <del>2</del>	5 A	45 5	S 2	5 3	07 12b	5 g	\$ £	5 3	5 3	\$ <del>4</del> 5	5 3	\$ <u>2</u>	8 3	9.7 1.15	A 2	Š

덗	1222	CCCTTACGGATICCTGGAGGGAACAFCIATATTTGACCCTGAAGAGICCATAIAAAATT 2280
0		TCASAAGSTCTGCCAACAAAAAATGACTCCAAGAATGTAGTATTTAGTATTAATT
qu	2281	[[]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]
ς	2305	GGTGAATCATTCGGGACTTCTGAGAAGTTCCAGAAAATAAAT
qc	2341	GGTGAATCATTGGGGACTTGTGGAGAAGTTCAGAAATAAAT
Oy	2365	CACCOTICTIONICAAAAAAAAACTOCTGAAGAAAAACTA 24.24
qq		GACCGTGTGTCAAAAGAAGTGTGAAGAAGTAACCTCTTAAACACTGAAAAAATA 2460
Οy	2425	CGCTTTGATATTGAAGGATGAGTGAGGAGATGAAGATGTONAGTTOTO 2484
ପ୍ର	2461	CGCTTTGATATTGAAGGATCAGATGAAGTAGAAGTAAATATTTTTTAGTAGATTTC 2520
δò	2485	AAATTTCAGCAGAAACTGGCAGAAATGACTCTACTCGAAACAGGAATGCAAAAGCACAAA 2544
q	2521	AAATITICAGCAGAAACLGGCAGAAALGACTLICLARTICGAARARGAATGRAAAAGRAAAA 2580
Oy	2545	ATGAATGATAGCATAGCATACTCAAACAAGGAAAATGAGGATCTCAAGGATTTGAT 2604
QQ	2581	ATGAATGATAGCATGCTCAAACAAGAAGAAGAAATGAGGATCTCAGGACTTGGT_2640
Οy	2605	GGACACTGTGTACACCTCTGGATTCATTGTCTTTGTCACTGTGACTGTGACTGTAACTTTTAC 2664
qu	2641	GGAÇAÇIIGIRGIAÇAÇIYETIĞATIYCAFITĞIYYETIYANAMATGIQAYTGIATAAYITTIYET 2700
δ	2665	AGSTECTGTTTATGGCCACATIAATACTICAGCFCTTTTGTGGGATATAAATGTCA 2724
qu ,	2701	AGGITTCTGTTTTATGCCCACATTTAATATCTTCAGCTCTTTTTTTT
ΟŊ	2725	GATGCAATTGTTTGGGGGATTCCTAAGCCGCTGAAATGTTGTTGTTGTTGTTGTACA 2784
qq.	2761	GATGCAATGCTTTGGGTGATTCCTAAGGCACTTGAAATGTTAGGTGTTATTATACA 2820
ον	2785	AGATTGAAAATCTTGTGTAAATCCTGCCATTTAAAAACTTGTTGTAGGATTGTTGCTCTT 2844
qq	2821	AGATTCAAAATCTTGTGTAAATCCTGGGATTTAAAAAGTTGTGGAGATTGTTTGT
ć	2845	CCAAAGTAAAATTGCTGTGCTTTATGGATAGTAAGAGGCCTAGAGGTGGGAGTCCTGA 2904
qq	2881	CCAAAGTAAAATTGCTGTGTTTATGGATAGTAAGAATGGCCCTTAGAGTGGGAGTCTGA 2940
Οy	2905	TAACCCAGCCTGTCTGACTAGCTTGCTTTTGTAGCATATAGGTGATGTTTGT 2964
qq	2941	TAACCCAGGCCTGTCTGTTGCCTCTTTGTAGCATATAGGTGTTTGTT
ολ	2965	ESTITITATIAATTAAASTAATTIIIJAAGIJAACAGAACACCC: JAGAAAAGI 3024
qo	3001	IGITITIATTAATTTAIAIGIAFAITIIIITAATIIAAAAGAAAAG
ζ	3025	GTCCTATCTATCTTCCAAATGCAATTGATTGACTGCCCATTCACCAAATTATCCTGAA 8084
qq	3061	GECCEATCHACHTCAAAIGCAATTIGATTGCCCCATTCACAAAATTATCHAAA 3120
Οy	3085	CICTICTGGAAAAATGGATATTALTAGAAATTAGAAAAAAATTACTAATTAGTAATTA
qq	3121	CICITCIGCAAAAAGGGAIATTATAGAAATTAGAAAAAAAAATTACTAATTTATATAA 3180
Oy	3145	GATTITTA FITTIACTA TI GGAATCTGATATACTG GIGCLIGILITALAAAA LI HGC111 3 204
qq	3181	GATTTAITTTACCATATCGATATCGCCCCCCCCCCCCCCC
ς	3205	TAATTAAATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACTACTGAAACA 3264
qu	3241	TAATTAAATAAAAAGCIGGAAGCAAAGTATAACCALATGATACTALCATACTACTACTGAAACA 8300
ςŏ	3265	GALTICATACCICAGAATGIAAAAGAACTIACTIGATITTCTICATCIAACTIATGIT 3324
qq	3301	GATITCATACCICAGAATGTAAAAGAACTIACTGATTATTTTCTTCATCCAACTTATGTT 3460

Seurch completed: January 18, 2003, 04:28:58 Job time : 129,437 secs

```
Command line parameters:

ModELInner Parameters:

ModELInner Parameters:

OH-MODELInner Parameters:

OH-MODELInner Parameters:

OH-MODELINER PROMISE SERVICE AND TASTAP SOBETX—TOPD - MINMAYCH-0.1

OH-MODELINE SERVICE SERVICE SOBET SERVICE SOBETX—TOPD - MINMAYCH-0.1

OH-MODELINE SERVICE SOBET SERVICE SOBETART - I - MATRIX **DOSUM62

THRENIN-0 ALIGN-15 - MODELINER SERVICE SERVICE SOBETARX - 100

THRENIN-0 ALIGN-15 - MODELINER SOBETARY - I - MODELINER SOBETARX - 100

THRENIN-0 ALIGN-15 - MODELINER SOBETARY - I - MODELINER SOBETARY - HEADSIZE-500 - MINIEN-0

THRENIN-0 ALIGN-15 - MODELINER SOBETARY - MODELINER SOBETARY - 100

THRENIN-1 SOBETARY - NO MARP - LARGEQUERY - NEGSCORES-0 - WAIT - LONGING

DEVILLED SOBETARY - NO STARBEXT-0.5 - DELOR-6 - DELOR-6 - DELOR-17
                                                                                                                                                                                                                           (Without alignments)
6107,852 Million cell updates/sec
                                                                                                                                                                                         January 18, 2003, 04:31:54; Search time 67,7433 Seconds
                                                                                                                                                                                                                                                                                                                                                                                      I MPPKTPRKTAATAAAAAAEP.....TRMQKQKMNDSMDTSNKEEK 928
                           Copyright (c) 1994 - 2003 Compugen Ltd
                                                                                                                           nucleic search, using frame_plus_p2n model
Gendore version 5.1.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    191868 seqs, 222444149 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSHM62
Xqapop 10.0 / Xqapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eqapoxt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ydapovt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6.0 , belext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fost processing: Minimum Match 0%
Maximum Match 100
                                                                                                                                                                                                                                                                                                                     09-026-459A-51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yqapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fqapop 6.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          dolog
                                                                                                                                                                                                                                                                                                                                                          Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                               M protein
                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sear ched:
                                                                                                                                                                                            Kun oh:
```

Published\_Applications\_NA:\* alabase

/cqu2\_b/ptodata/l/pubpha/PCIUs\_PUBCOMB.seq:\* Angua Digitalata Digital programs of puponome sogra /cqnz\_5/ptodata/1/pubpna/US10\_PUBCOM8.seq·\* /cqn2\_6/ptodata/l/pubpna/US60\_NEW\_PUR seq:\* ZennZ - 6/pt-odat a/1/phthpna/HsnZ\_brinc snik seq.\* ZeqnZ\_6/pt-odat a/1/pettpna/PcT\_NBW\_prik seq.\* Zegnz, 6/prodata/1/pubpha/usu6\_NFW\_PUR\_seg.\* /cqn2\_6/ptodata/1/pubpna/US06\_PUBCOMB.scq:\*/cqn2\_6/ptodata/1/pubpna/US07\_NEW\_PUB.scq:\* /cqnz\_b/ptodata/l/pubpna/USO8\_NEW\_PUB.seq:\*/cqnz\_b/ptodata/l/pubpna/USO8\_PUBCOMB.seq:\* /cqnz\_6/ptodata/1/pubpna/US09\_NEW\_PUB.scq:\*

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. is the number of results predicted by chance to have a Pred. No.

\* gos AMCONTACTO Probpers 77560\_PITPO MA GOST \*

## SUMMARIES

Description	Sequence 50, Appl Sequence 1, Aprli Sequence 143, Appl Sequence 7, Appli
<u>a</u>	4554 10 US-09-469-522-50 4555 10 US-09-469-522-1 59-95-4-521-1 4849 9 US-09-954-531-1 2995 10 US-09-960-211-7
<u> </u>	55.5
Owery Match Length DB 1D	4554 4555 4839 2995
Ouery Match	0.000
31008	4798 4787 4787 4777
Kessu t	- 7 <b>- 4</b>

```
Sequence 3546, App
Sequence 2546, Ap
Sequence 175, App
Sequence 359, App
                                                                                                                                        Sequence 17, Appli
Sequence 1, Appli
Sequence 2, Appli
Sequence 2, Appli
                                              Appl
                                                                                          App
                                                                                                                                                                                                          sequence 296, App
Sequence 51, Appl
Sequence 163, App
                                                                                                                                                                                                                                                          Sequence 292, App
Sequence 1153, Ap
Sequence 186, App
                                                                       App
                                                                                                                  Sequence 44, Appl
Sequence 36, Appl
                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Appli
Sequence 3, Appli
                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1242, April Sequence 55, Appl
                                                                                                        Sequence 3, Appli
                                                                                                                                                                                    Sequence 4131, Ap-
Sequence 19910, A
                                                                                                                                                                                                                                                                                                                                                                            Sequence 9859, Ap
                                                                                                                                                                                                                                             Serparan et 216, App
                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 490,
                                                                                                                                                                                                                                                                                                                                           Sequence 305,
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 474,
                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 474,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 564,
                                                        Sequence 42,
                                                                                          Sequence 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 59,
                                   Sequence 46,
                                               Sequence 48,
                        Sequence
                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MORETEED RELEAGEMA TOWNS (GIFPRESSOR
                                                                                                                         0 08-09-469-522 46

08-09-292-758 47

08-09-0770-657 1

2 08-09-10-025-676-2

0 08-09-864-761-4131

0 08-09-864-761-19910

0 08-09-864-761-19910

0 08-09-864-824A-296

0 08-09-964-824A-296

0 08-09-964-824A-296
                                                                                                                                                                                                                                                                            0 US-09-967-768A 186
0 US-09-967-768A 186
0 US-09-96692-2546
0 US-09-960-254-175
2 US-10-960-254-175
2 US-10-960-459
0 US-09-982-091A 1
                                                                                                                                                                                               19910
                                                                                                                                                                                                                                                                                                                                                                                              US-10-19 801 368 55

US-10-007-805-490

US-10-007-805-474

US-10-007-805-474

US-10-007-805-66

US-10-007-805-564

US-10-007-805-564
                                                                                                                                                                                                                                                                                                                                                             US-09-885-535-3
US-09-815-242-9859
US-09-938-842A-1242
                                                                                                                                                                                                                                             OS 10 108 605 216
US-09-864-864 292
US-09-954-456-1153
                                                                                                                                                                                                                                                                                                                                                                                                          .10-007-805-490
09-604-287A-474
                                                        469-522-42
469-522-32
469-522-32
469-522-34
                                                                                                   US-09-469-522-44
US-09-469-522-44
US-09-469-522-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ANDRESSE: Annald, White & Durker
SIRBEL: P.O. HOX 4443
CITY: HOUSTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALLCONMENTS
Sequence 50, Application US/09169522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                        10
                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77210-4433
                                                                                                                                                                                                                                                                                                                                                                                               £553
3288
                                                                                                                                     3960
3747
                                                                                                                                                                                                                                            3624
10190
10211
10211
6773
                                                                                                                                                                                                                                                                                                                                                                                                                        3865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. US20020151461A1
GENERAL INFORMATION:
                                 4477
4483
                                                                   3.42.4
3.32.3
426.6
                                                                                                                                                                                                                                                                                                                                       5864
                                                                                                                                                                                                                                                                                                                                                                                                                                  3865
                                                                                                                                                                                                                      8493
                                                                                                                                                                                                                                10096
                                                                                                                                                                                                                                                                                                                                                                9274
                                                                                                                                                              1747
                                                                                                                                                                                                25.
25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 1
US-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                            ) 45 L
                                                                                        4263
4192
4068.5
                                                                                                                                                                                                                     156
152
148.5
                                                                                                                                                                                                                                                                                                                                                                       138.5
         4595.5
                                            4437.5
                                                                   4357
                                                                                                                                     810.5
516.5
516.5
384.5
                                                                                                                                                                                   243
218
177.5
4599
                                                                                                                             4017
                                                                                                                                                                                                                                                        147
                                                                                                                                                                                                                                                                                                                                       144
                                                                                                                                                                                                                                                                                                                                                                39.5
                                 4444.5
                                                                             32834648484848383008834684848
                                                                                                                                                                                                                                                                     ·
--
```

```
SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
                                                                                                                                                               APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec 1999
                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                      CLASSIFICATION: <Unknown.
                          MEDIUM TYPE: Floppy disk
COMPUTER READABLE FORM:
```

```
407 ATCIGIAICITIAIIGCAGGAGATGACCIAGGIGAIAIGICGIICACITITACIGAGGIA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 HeserthriftuileAsnSerAlaLeuValLeuLysValSerTrpHeThrPheLeuLeu 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                127 GACCTGCCTCTCGTCAGGCTTGAGTTTGAAGAAACAGAAGAACAGATTTTACTGCTTA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #1 ValsarservalAsptlyValtemflyTlyTleGlaLysLysCluLeuTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       247 GIIIICAICIGTOTATGGACTATTGGGACCTTATTCAAAAGAAAAAGGAACTGGGGGA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   [10] TleCysTlePheTLeAlaAlaValAspLeuGlyAspMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 ClutysAsnileGluileSerValHisLysPhePheAsnieuLeuLysGluileAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (67) CAGAAAAQATAGAAATCAGTGCATAAATTGTTTAACTTACTAAAAQAAATTGATACC 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141 SerThrLysValAspAsnAlaMetSerArqLeuLeuLysLysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             161 .curbeserLysLendluArqThrCysCluLeuileTyrLeuThrGlnProSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               l MethyceprolysthrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41 AspleauroleuValArgleuGluPheGluGluThrGluCluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 SysOln ysteulystleProAspHisValArgGluArgAlaTrpLeuThrTrpGluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-459A-51 (1-928) x US-09-469-522-50 (1-3554)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative:
Mismatches:
                                                                                                                         REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFOPMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length.
                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 7.2790
SEQUENCE DESCRIPTION: SEQ ID NOT SO.
                 APPLICATION NUMBER: 097026,459
                                                                                                     REGISTRATION NUMBER: 41,071
                                                                                                                                                                   512/418-3000
                                                                                                                                                                                                                                                  LENGTH: 3554 base pairs
                                            <Unknown>
                                         FILING DATE: <Unknown>
ALLORNEY /AGENT INFORMATION:
                                                                               NAME: Hibler, David W.
                                                                                                                                                                                     TELEFAX: 512/474 7577
INFORMATION FOR SEQ ID NO: 50:
                                                                                                                                                                                                                                                                           TYPE: nucleic acid
SIRANDEDNESS: single
                                                                                                                                                                                                                               SEQUENCE CHAPACTERISTICS:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4798.00
                                                                                                                                                                                                                                                                                                                     oPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                     1 ELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                               NAME/KEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Aliqueont Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                        09 459 522-50
                                                                                                                                                                                                                                                                                                                                      FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
```

201 AlatysolyGluValLeuGluMetGluAspAspLeuValileSerPheGlnLeuMetLeu 220

```
1327 ATTGGATGAGAGGAATAAAGTIGGAGTTGGGIAIIGIAIIAGGAGIAAIGGAAICCAIG 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1027 AAAACICIICAGACIGAIICIAIAGACAGIIIIGAAACACAGAGAACACGGAAAAAGI 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1207 ATTTCCTATTTAACAACTGCACAGAATCCAAAAGAAAGTATACTGAAAAGAGTGAAG 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1387 CTTAAATCAGAAGAAGGATTATCCATTCAAAAITTTAGGAAACTTCTGAAIGACAAC 1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ISD7 AGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTCCCATGGATTCTGAATGTG 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            381 ThrIleGinGlnLeuMetMetileLeuAsnserAlaserAspGlnFtoserGluAsnLeu 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 401 IleSerTyrPhcAsnAsnCysThrValAsnProtysCluSerIleLeutysArgValLys 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221 GysValledAspTyrPhelleLysLedSerProProMct.AcdAedLysGluProly71Ays 240
                                                                                                                                             241 ThralnValileProileAsnGlySerProArqThrFroArqAlyGluAsuArqSer 260
                                                                                                                                                                                                                              261 AlaArqileAlaLysGlnLeuGluAsnAspThrArqileileGluValLeuCysLysGlu 280
                                                                                                                                                                                                                                                                                                               28] HisSluCysAsnileAspGluVallysAssValTyriheLysAsnibelluPtoPheMet 300
                                                                                                                                                                                                                                                                                                                                                        847 CATGARGABAISAISAGGTGAAAATGTITATTTCAAAAATTTTATAGGTTTTATG 906
                                                                                                                                                                                                                                                                                                                                                                                                 321 TyrGlaSlulleTyrLeuLysAsnLysAspLeuAspAlaArqLeuFheleuA.pHlaAsp 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361 AsnLeuAspGluGluValAsnValIleProProHisThrProValArqThrValMetAsn 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  441 IleGlySerGluArgTytLysLeuGlyValArgLeuTyrTyrArgValMetGluserMet 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   461 LeuLysSerGluGluGluArgLeuSerIIeGlnAsnPheSerLysLeuLeuAsnAspAsn 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481 IlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValWetAlaThrTyrSerArg 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    501 SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrplleLeuAsnVal 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    667 TGTGTCCTTGACTATTTATTAAACTCTCACTCGACGTGGTGGTGGTCAAAGAACGATATAAA 226
                                                                                                                                                                                    787 GCACGGAIAGCAAAACAACTAGAAAAIGAIACAAGAATIATIGAAGIICICIGIAAAAGA 846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        341 LysThrLeuGlnThrAspScrlleAspSerPheGluThrGlnArgThrProArgLysScr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541 AsnLeuThrArgGluMetIleLysHisLeuGluArgCysGluHisArglleMetGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                  £
                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         금
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                             Ġ
                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                 ġ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
```

```
881 GlySerAspGluAlaAspGlySerLySHisLeuProGlyGluSerLySPheGlnGlnLys 900 、
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1587 CTTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTAAACAATCAAAGGGCGAGAA 1746
                                                                                                              HELFELLE HELLE HEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2227 CSTSTTTSATSAAGAAGAGGAGTATGATTSTATTATAGTATTSTATAAGTGGGTGTTC 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2407 GGAGGGAACAPCTATATTTGACCCTGAAGAGTCCATATAAAATTGAGAAGGTGGGCA 2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1907 - OGTGTAAATTGT AGTGGAAATGGAGAGAAAGAAAGGAAAGGTTGGAGAAAG 1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1927 - WALIGAAA ICHACCICICH ICACIGTH TATAAAAAGIGTA FOGGCIAGGCIAHCTG-1986
                                                                           581 GTyProThrAspHisLeuGluSerAlaCysProLeuAsnieuProLeuGlnAsnAsnHis 600
                                                                                                                                                                                                                             601 ThrAlaAlaAspMetTyrLeuSerProValArqSerProLysLysLysGlySerThrThr 620
                                                                                                                                                                                                                                                                                                                                                                            621 ArqValAsnSerThrAlaAsnAlaGluThrGlbAlaThrSerAlaPhedInThrGlnLys 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           641 ProtestrysSer thrSertenSertenPetrtysLysLystysVallyrArdicuAlalyrLeu 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661 ArglenAsuThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGluHisIleIle 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    581 Trp1hrLeupheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArqHisLeu 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           701. AspSln11eMetMetCysSerMet1yrCly111eCystgsValtysAss111eAspt<math>e017s...729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            741 ArqValLeufleLysGluGluGlufyrAspSerflefleValPheTyrAsnSerValPhe 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           761 MetGinArgleniysihrAsnileLeuGinTyrAlaSerThrArgPrOProThrLeuSer 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781 ProlleProHisIleProArgSerProTyrLysPheProSerSerProLeuArgllePro 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    801 dlydlyAsnilelyrileSerProteatysSerPreTyrtysileSerGlaGlytleuPro 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       821 ThrerothilysMetthreroArgSerArgileLeuValSerfleGlyGluSerPheGly 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841 ThrSerGluLysPheGlnLysIloAspGlnMo+ValCysAsnSerAspArqValLouLys 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901 LeuAlaGluMetThrSerThrArgThrArgMetGluLysGluLysMetAsuAspSerMet 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           921 AspibitsorAsniysdiudluiys 928
                                                                                                                                              ŝ
                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                 ÷
                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                            Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \stackrel{>}{\sim}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \tilde{\mathbb{S}}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
```

```
1 MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyFroGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41 AspteuProLeuValArgLeuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: MODIFIED RETINOBLASIOMA TUMBER SHEPFESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-026-459A-51 (1-928) x US-09-469-522-1 (1 4554)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                           ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER, US/55/169,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: 
    Unknown>

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Inde is:
                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: 18M PC compatible OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: 7.2790
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 41,071
                                                                                                                    Benedict, William E.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
                 Sequence 1, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 3555 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                 STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS
                                                                                                 Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4787.00
                                                                              APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99.89%
99.78%
99.77%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ 1D NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                           77210 4433
                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                                                                                                                                                                                                                                                ClfY: Houston
                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE
US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      οχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

																	-	
80	100	120 366	140 426	160 486	180 546	200	220	240 °	260 786	28 84	300	320	340 1026	360 1085	380 1146	400	420 1266	440
CysGlnLysLeuLysIleProAspHisValArgGluArgAlaTrpLeuThrTrpGluLys 	Cl <u>r</u> tyriledinLysLysLy 	Tecys   Lethellealaalava  AspleuGlyaspMetSerPhethrPhethrGlubeu 	SINEYSANDI]	Set Ato	LouPheSerTysLeuGluArgThrCysGluLeulleTyrLeuThrGlnProSerSerSer 	nSerAlaLeuValLeuLysVa 	Alalyselyglu 	CysVallenAsETyrPhellelysteuSerProProMetLeuLeuLysClubroTyrLys 	ThrātaVallieProlleAsnGlySerProArgThrProArgArgGlyGlnAsnArgSer 	AlaargilealaiysGinleuCiuasnAspthrargileileGiuvalLeuCyslysGiu 	HisclicCysAsniloAspGluVallysAsnValTyrPhoLysAsnPholloProPheMet	AsnSerLeughyLo::ValTheSerAsnGtyLouProGtuValGtuAsnLeuSerLysArg	yrcluc uc tcfyrlccliysAsnlysAspLeuAspAlarglcuPheLeuAspHisAsp	LysThricuGinThraspScrileaspScrPhcGluThrGlnargThrProArglysScr 	AsniceraspoluoluvalasnvalileproproHisThrProvalargThrvalMetasn 	aSerAspG                AAGTGATC	PSGTTYTPBGASGASRGYSTHTV3 ASRIDFOLYSGIUSGT1 CLCULYSAFGV3 LYS 	AsplieGlyTyrIlePheLysGluLysPheAlaLysAlaValGlyGlnGlyCysValGlu
181	81	101	121	141	161	181	201	221	241	261	291	301	321	341 1027	361 1087	381	401	421
à ë	55 G	9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	27 36	5 g	ÒY DĐ	55	dy Db	Q d	dy Ub	9. 13. 14.	Q.	á a	oy Opp	5 G	65 11 <b>6</b>	95 26	55 P	ζ

```
1927 CCATTGAAATCTACCTCTTTTACTGTTTTATAAAAAAGTGTATGGGCTAGCCTATCTC 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1327 ATTGGATCACAGCGATACAAACTTGGAGTTCGCTTGTATTACCGAGTAATGGAATCCATG 1386
                                                                                                                                           1387 CTTAAATCAGAAGAAGAAGATTATCCATTCAAAATTTTAGCAAACTTCTGAATGACAAC 1446
                                            441 HeGlySerGlnargTyrLysLeuGlyValArgLeuTyrTyrArgValMetGluSerMet 460
                                                                                                           LeuLysSerGluGluGluArgLeuSerIleGlnAsnPheSerLysLeuLeuAsnAspAsn 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661 ArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGluHisIlelle 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             681 TrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrCluLeuMetArgAspArgHisLeu 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         701 AspGinIleMetMetCysSerMetTyrGlyIleCysLysValLysAsnileAspLeutys 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721 PheLysllelleValThrAlaTyrLysAspLeuProHisAlaValGlnGluThrFheLys 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    741 ArgValLeutleLysGluGluGluTyrAspSerileileValPheTyrAsnSerValPhe 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   761 MetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSerThrArgProProThrLeuSer 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 ProlleProHislleProArqSerProTyrLysPhaProSerSerProLeuArq11aPro 8(0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481 IlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThrTyrSerArg
                                                                                                                                                                                                                                        SerThrScrClnAsnLeuAspSerGlyThrAspLeuSerPheProTrp11eLeuAsnVal
                                                                                                                                                                                                                                                                                                    LeuAsnLeuLysAlaPheAspPheTyrLysValIleGluSerPheIleLysAlaGluGly
                                                                                                                                                                                                                                                                                                                    GlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGlnAsnAsnHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601 ThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLysLysClySerThrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       621 ArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 641 ProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArgLeuAlaTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2107 GACCAAATTATGATGTGTTCCATGTATGGCATATGCAAAGTGAAGAATATAAGACTTAAA
                                                                                                             461
                                                                                                                                                                                                                                      501
                                                                                                                                                                                                                                                                                                    521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 υb
                                                                                                                                         qq
                                                                                                                                                                         δ
                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ωý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Öλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ōλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      òχ
```

```
978 CATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATACGTTTTATG 1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1218 AACCT-IGATGAAGAGGTGAATGTAATFCCT-CCACACACTCCAGTTTAGGACTGTTATGAAG 1277
                                                                                                                                                                                                                                                                                                                                                                                                                                          301 AsnSerLeuGlyLeuValThrSerAsnGlyLeuProGluValGluAsnLeuSerLysAig 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 381 ThrileGinGinLeuMetMetIleLeuAsnSerAlaSerAspGlnProSerGluAsnLeu 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81 ValserservalAspolyValLeuglyslyTyrlleoluLysLysSysSlaLeuTrySly 100
                                                                                                                                                                                                                                                                                                             121 CIRL/SASR110Clu110SerValHistysPhePheAsrLentzulz/SClu110AspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22] CysVallouAsplyrPhellelystkenSerProbroMettantantyssStannorphys 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           918 GCACGGATACCAAAACAACTAGAAATGATACAAGATTATTGAAGTTCTCTGTGTAAAGAA 977
                     78 CTFTCALCTGGGATGGGGGTATTGGGGGGTIAIATTCAAAAGAAAAAGGAAATGTGTGTGGA 437
                                                                                                                                                                                                                                                                                             01 HeCystlePhelleAlaAlaValAspLeuGlyAspMetSerPheThrePhelhrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161 LeuPheSerLystleuGluArgThrCysGluLeuIleTyrLeuThrGlnProSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201 AlaLysGlyGluValLeuGlnMetGluAspAspLeuValIleSerPheGlnLeuMetLeu 220
 21 ProAlaProProProProProProGluGluAspFroGluGluAspSerGlyProGlu 40
                                                                         41 AsplicaProleaValArgLeaGlaPheGlaGlaThrGlaGlaProAspPhethrAlaLea 60
                                                                                                                                                61 CrsClangsLeutstleProAspHisValAraGlaAraAlaTrpLeaThrTrpClnLgs 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             321 TyrGluGluIleTyrLeuLysAsuLysAspLeuAspAluArgLeuPhelesAspHisAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 ThralaVall1eProf1eAsnGlySerProArgThrProArgArgGlyGlnAsnArgSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28] HisGluCysAsnileAspGluValLysAsnValTyrPheLysAsnPhelleProPheMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    341 LysThricuGinThrAspSerifeAspSeribeGiaThrGinArqThrDroArqLysSter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 λο
•••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                           õ
                                                                                                            a
                                                                                                                                                ö
                                                                                                                                                                                 3
                                                                                                                                                                                                                        ं
                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Weaver, Zoe
THIGE OF INVENTION: Process for Identitying Anti-Cancer Therapeutic Agents Using Cand
THIE OF INVENTION: Gene Sets
                                                                                                                                                                                                                                                                        2.447 PONATAROTAMATERREGIAARSKOTTAANAAGITTROFAGTTRAKKOGTTAKOTATAKTA 24.06
                                                                       2407 BGARBGAACATGTATATTICACCCTGAAGAGTCCATATAAAATTTGAGAAGGTCTGGCA 2466
                                                                                                                                                                                                                      2527 ACTICICIABAAGITCCABAAAAIAAAICAGAATGGIAAIGIAAGGAAGGGAGGGIGGGIGAAA 2586
                                                                                                                                                                                                                                                                                                                                                                                                                                        821 ThrProThrLysMetThrProArgSerArgIleLeuValSerIleGlyGluSerPheGly 840
                                                                                                                                                                                 841 ThrserGluiysPheGluiys1FeAsnGluMetValCysAsnSerAsparqValLeutys 860
                                                                                                                                                                                                                                                          861 ArdSetAlaGluGlySetAsnProProLysProLenLySLysLeuArdPheAsp11eGlu_880
                                                                                                                                                                                                                                                                                                                                881 GlyserAspOluAlaAspOlySerLysHisLeuProGlyGluSerLysPheClnGlnLys 900
                                                                                                                                                                                                                                                                                                                                                                                                       901 LenAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 Met ProprolysThrProArqlysThrAlaAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                      926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98 09 026 459A 51 (1 928) x 08 09 954 -531 -143 (1-4839)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      indeds:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE: 689.290-77
CURRENT APPLICATION NUMBER: US/09/954,531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT FILLING DATE: 2002 (* 02)
PRIOR APPLICATION NUMBER: US/60/233,133
PRIOR FILLING DATE: 2000 09 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER (15/00/234,034)
PRIOR FILINE LATE: 2000 09-20
PRIOR PELLINE DATE: 2000 09-22
PRIOR FILING DATE: 2000 09-22
PRIOR FILING SATE: 2000 09-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US/60/234,009
PRIOR FILLING DATE: 2000-09-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2767 GATACCICAAAGAAGGAAGAAA 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence (4.5, Application USZU9954531
Patent No. USZU020165180Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               921 AspThrSerAsnLysGluGludys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFIWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000 09 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4787.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 86.78%
99.77%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                868.66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SECTO NOS: 1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hest Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US 09 954 531 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US 09-954 541 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 143
LENGTH: 4839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouerry Mateha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                    5
                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                       7
                                                                                                                                                                                                                                                                                                                                                                                                                                          i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                   \leq
                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                S
```

	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	77 0 77 0 72 0 74 0 75 0 75 0 75 0 75 0 75 0 75 0 75	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
G 13 G 13 G 13 G 13 G 15 G 15	70		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
AAATC AAATC 3Vall 11111 ACTGG ATCCA AATCCA	-Sera -Sera -Sera -Sera -Sera 	8 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	TYTT TTATC THE THE THE THE THE THE THE THE THE THE
FCAG LysA LysA AAAA AAAA AAAA AAAA AAAAA AAAAA AAAAA AAAA	Phrity hill between the control of t	ALA ALA SILA BILA	94-6-01779 94-6-01779
		#	A SA
			ASASSATTY  AAAAAAATTI  STUHISPLOGIA  STUHISPLOGIA  THE HILLIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
			hetyrtysty TTTATAAAAA & ussetstuff TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
AAA. ASE Photographic Control of the		autheaspla.	Cysserthrserfeuserfeuthefyrty  Anatological Hillillillillillillillillillillillillill
ATTTT STILL SCIUL HILL MARANA MCTTG	######################################	Set I I I I I I I I I I I I I I I I I I I	CUSCITATION OF THE PERSON OF T
	AGAACGAU AGAACGAU TTTATTAC TTTATTAC TTTATTAC TTTATTAC TTTATTAC TTTATTAC TTTATTAC TTTATTAC TTTATTAC TTTATTAC	Alartpleusschapse GITTPLEUSschapse GITTPLEUSGHILL GITTPLEUSGHILL FITTPLEUGH GAACHGARCAGT GAGGAGAATGTATCT GAGGAGAATGTATCT GITTPLEUGH	HILLIHITH CONTROLLER IN THE INTERPRETATION OF A CONTROLLER IN
	THE	AGATATA PLCUSC (11111) (201010) (ASPER 11111) AGATATA AGATATA AGATATA	Serth LILLI LICIAGO LINE LINE LINE LINE MOSTMON MOSTMO
11174 11174 11178 11178 11178 11178	LITTICALLY TAAAICACO COPPEHISS TITTICALLY TITTICALLY TAAAICACO TAAAICACO TAAAICACO TAATITIAN TAATITIAN TAATITIAN		MAN AAA AAA AAAA AAAA AAAA AAAA AAAA AA
ASP	A Ser Clark	0100 0117 0117 0117 0117 0117 0117 0117	200 AT 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ા મેં ૩ જે લા છે 🕶 જે જ	0 - 0 N O M N D + 1		+ 5 0 7 0 F C 7 7 +
6 6 6 6 6 6 6	5 4 5 4 5 4 5 8 5 1		5 6 5 6 5 6 5 6 5

```
2358 CGTGTTTTGATCAAAGAAGAGGAGTATGATTCTATTATAGTATTCTATAACTCGGTCTTC 2417
                                                                                                                                                                      2538 GGAGGGAACAPCTATATETEGACCCTGAAGACTOCATATAAAATTTGAGACCTCTCCCA 2597
                                                                                                                                                                                                                                                                                              801 GlyGlyAsnIleTyrIleSerProteutysSorProTyrLysIleSorGluGlyLeuPro 820
                                                                                                                                                                                                                    821 ThrProThrLysMetThrProArgSerArgIleLeuValSerIleGlyGluSerPheGly 840
                                                                                                                                                                                                                                                                                841 ThrSerGluLysPhcClnLysIlcAsnCinMctValCysAsnScrAspArgValLeuLys 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Maneval, Daniel C.
IIILE OF INVENTION: Pecombinant Adenoviral Vector and
Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OPERATING SYSTEM: PC-LOS/MS-10GS SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUSED ADDRESS: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Two Embarcadero Center, Bighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/328,673
FILING DATE: 15-FEB-2000
APPLICATION NUMBER- US 08/142,669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICAL.
PILLINS INTE: 25-0CT-1993
APPLICATION NUMBER: US U8/233,009
TITME LAFE: 26-AFK-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA.
APPLICATION NUMBER- HS/09/9860,211
FILING DATE. 18:May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2898 CATACCTCAAACAAGGAAGAAA 2921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AFFLICANT: Gregory, kichard J. Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER PEADABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                921 AspThrSerAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-05-860-211-7; Sequence 7, Application US/09860211; setuit No. US.0320137212A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET
                     .
Ой
                                                          QC
                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                          òλ
                                                                                                                                                                                                                                                                                                                                                                                                                                   P<sub>P</sub>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 검
                                                                                                                       g
                                                                                                                                                      ŝ
                                                                                                                                                                                  qq
                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
```

```
[2] ChrysAsnileGluileSerValHisJysPhePheAsnLeuLeuLysGluileAspfhr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81 ValSerSerValAspGlyValLeuGlyGlyTyrIleGInLysLysLysGluLeuTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101 IleCysllePhelleAlaAlaValAspLeuGlyAspMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     439 AFCHOLAICEFIAFEGSAGSAGFIGACCEASAEGAGATGFICGFFFGACTTFFACTGAGCTA 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                499 CAGAAAAAACATAGAAATGAGTGTGCATAAATTGTTTAACTTACTAAAAGAAATTGATAGC 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141 Ser EhrtysValAspAshAlaMetSerArgfæuteutystysTyrAspValLcuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       559 AGFACCAAAGTIGALAAFGCTATGTCAAGACTGTFGAAGAAGTATGATTGFFFTGCA 618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16! LeuthaserLysLeudluAraThrCysGluLeuIleTyrLeuThrGlnProserSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       619 CHCFICACHAAAITGGAAAGGACAIGTGAACHTAIATATTTGACACAGCAGCAGFFCG 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181 HesarthtshilleAsuserAlaLeuValLeutysValSertrpHethrPheleuLeu 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    679 ATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACATTTTATTA 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201 AlaLysGlyGluValLenGlnMetGluAspAspLeuVallleSerPheGlnLeuMetLeu 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2) ProAlaProProProProProProCluGluAspProCluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MetProProLysThrProArglysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41 AsplemProLeuValArqLeuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 CyschniystentystleProAspHisValArgGluArgAlaTrpLeuThrTrpGlutys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             925
                                                                                                                                                                                                                                                                                                                         /note- "retinoblastoma tumor suppressor"
SEQUENCE DESCRIPTION: SEQ 1D NO: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-026 459A-51 (1-928) x US-09-860-211-7 (1-2995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                         /product.- "RB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                  15, 167
                                                                         TELEPHONE: (415) 576-0200
TELEFAR: (415) 576-0400
INFOHMATION FOR SEQ ID NO: 7:
SEQUENCE THARACTERISTICS:
                                                     TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REPERENCE / POOTRET NUMBER -
                                                                                                                                                  LENGTH: 2995 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
NAME: Smith, limothy S.
                REGISTRALION NUMBER:
                                                                                                                                                                                                                                                                                           27.17
                                                                                                                                                                                                                                                                                                         OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                              4777.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.688
99.568
                                                                                                                                                                                                               TopoloGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.788
                                                                                                                                                                                                                                  MOLECULE LYPE: CONA
                                                                                                                                                                                                                                                                    NAME / KEY -
                                                                                                                                                                                                                                                                                           LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                       Aliqument Scores:
                                                                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                                  09 860 211 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            - <del>-</del> -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
```

```
979 CATGAATGIAAIATAGATGAGGGGAAAAATGITIAIITCAAAAAITITAIACGITTATG 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1099 TACGAAGAATTTATCTTAAAAATAAAGATCTAGATGAAGATTATTTTTGGALGATGAT 1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1159 AAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAAACACACGAAAAAGT 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1219 AACCTTGATGAAGAGGTGAATGTAATTCTTCCACACACTCCAGTTAGGACTGTTATGAAC 1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1339 ATTICCTATTITAACAACIGCACAGIGAAICCAAAAGAAAGAATGAAAAGAGIGAAG 1398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1399 GATATAGGATACATCTTTAAAGAGAAATTTGCTAAAGCTGTGGGGACAGGGTTGTCGAA 1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .579 ATTITICATATGICITIAITGGGGTGCGCTCTTGAGGTTGTAATGGCCACATATAGCAGA 1648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1759 AACTTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACATGAATCATGGAATCC 1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421 AspiteGlyTyrilePhetysClutysPheAtatysAtaValCtyCtnGlyCysVatGlu 440 HIHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481 HePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThrTyrSerArg 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                501 SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrpIleLeuAsnVal 520
                                                                                                                                                                                                          281~ {\tt HisGluCysAsnIleAspGluValLysAsuValTyTPhetysAsnPheIleProPheMet} - 800
                                                                                                                                                                                                                                                                                                                                                                                                                        321 TyrCluCluIleTyrLeaLysAsnLysAspLeaAspAlaArqLeuPheLeuAspHisAsp 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LysThrLeuGlnThrAspSerIleAspSerPheGluThrGinArqThrProArqLysSer 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  401 IleSerTyrPheAsnAsnCysThrValAsnProLysGluSerIleLeuLysArqValLys 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            461 LeuLysSerGluGluGluArqLeuSerIleGlnAsnPheSerLysLeuLeuAsnAspAsn 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            521 LeuAsnLeuLysAlaPheAspPheTyrLycVallleGluSerFhelleLycAlachach
                                    361 AsnieuAspCluGluValAsnVallleProProProHisThrProValArqThrValMetAsn 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  561 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGlnSerLysAspArqGlu 580
739 GCTAAAGGGGAAGTATTACAAATGGAAGATGATCTGGTGATTTGATTTGATTTAATGCTA 798
                                                          859 ACAGCTGTTATACCCATTAATGGTTCACCTCGAACACCCAGGCGAGGTCAGAACACAGAGT 918
                                                                                                                261 AlaArgileAlaLysGlnLeuGluAsnAspThrArgileIleGluValLcuC,sLyuGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      381 ThrileGluGlnLeuMetMetIleLeuAsnSerAlaSerAspGlnProSerGluAsnLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    441 IleGlySerClnArgTyrLysLeuGlyValArgLeuTyrTyrArgValMetGluSerMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541 AsmicuThrArgGluMetileLysHisLenGluArgCysGluHisArgHeMetGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                γο.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
:
                                      ੋਂ
                                                                          qq
                                                                                                                ò
                                                                                                                                                d
                                                                                                                                                                                        \ddot{\sigma}
                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                      Ч
                                                                                                                                                                                                                                                                                                                                            ç
                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                      ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ďΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
```

```
1939 ACTGCAGCAGTATGTATCTTCTCCTGTAAGATCTCCAAAGAAAAAAAGGTTCAACTACG 1998
                                                                                                                                                                                                                         781 ProfleProHisIleProArgSerProTyrLysPheProSerSerProLeuArgIlePro 800 *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2119 | GGCTAAATACACTTTGTGAACGCTTTGTGTGTGAGGAGGAGAAAATJAGAAAAAAATATGTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2359 CGTGTTTGATCAAAGAGAGAGTATGATCTATTATAGTATCGATTTCATGGTGTTC 2418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2479 CAATACCTCACAITCCTCGAAAGCCTTACAAGIITCCTAGIICACCCLAAGGATCCT 2538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1999 OSTGIAAAITCIACIGGAAAIAOAGAGAOAOAAGE FOAGGEFOOAGAGG 2058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2779 GGATCAGATGAAGCAGATGAAGTAAACATGTGAGGAGAGTGGAAATTTGAGGAAA 2838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        581 olyProThrAspHistenGluSetAlaCysProLeuAsnLeuProLeuGinAsnAsnHis 600
                                                                  601 ThralaalaaspMetTyrLeuSerProValArgSerProLysLysLysGlySerThrThr 620
                                                                                                                                   621 ArqValAsnSerThrAlaAsnAlaGlurhrGlnAlaThrSerAlaPheGlnThrGlnLys 640
                                                                                                                                                                                                       64] ProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArgLeuAlaTyrLeu 660
                                                                                                                                                                                                                                                                            661 ArglewAsuThrLeuCysGluArglewLeuSerGluHisFroGluLeuGluHisIlelle 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      741 ArgValLeufletysGluGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      761 MetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSerThrArgProThrLeuSer 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             821 ThrProThrLysMetThrProArgSerArgIleLeuValSerIleGlyGluSerPheGly 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  941 ThrSer3laLysPheGlnLysIleAsaGlnMetValCysAsnSeiAspArqValLealys 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   861 ArgSerAlaGluClySerAsmProProLysProLeuLysLysLeuArgPheAspileClu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    881 GL, SerA.g GlunlanspGL, SerLysHisLeukrochyGlaserLysRhedsmülnlys 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901 LeuAladluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2899 GAIACCICAAACAAGGAAGAGAAA 2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           921 AspThrSerAsnLysGluGluLys 928
 ŝ
                                                                                                 9
                                                                                                                                        S
                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>۾</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
```

```
95 LysLysGluLeuTrpGlyIleCysIlePheIleAlaAlaValAspLeuGlyAspMetSer 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          55 ProAspPhcThrAlaLeuCysClnLysLeuLysTleProAspHisValArgGluArgAla 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35 GlnAspSerGlyProGluAspLeuProLeuValArqLeuGluPheGluGluThrGluGlu 54
                                                                                                                                                                         TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE. Fatentin Rolease #1 0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-026-459A-51 (1-928) x US 09:469 522:28 (1 3455)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative:
Mismatches:
                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            227,694,6078"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER, IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                074[10]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CLS
LOCATION: 7..2691
SEQUENCE PESCEIFILON: SEQ ID No. 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 09/025,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 41,071
                                                                                                                  Hu, Shi-Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  >Saknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                   Sequence 28, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER 182704
FILING DATE: 22-Dec-1999
CLASSIFICATION, SURHOWN
                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 3455 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
                                                                                                                                                                                                            NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4599.00
44.898
99.788
                                                                                              APPLICANT: Xu, Hong-Ji
                                                                                                                                                     Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95.858
                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                     CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                         STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
                     08-09-469-577-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
S
RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DD
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
```

```
2350 AFTFCAGAAGGCTGCCAACAACAAAATGACTCCAAGATCAAGATCA 2409
                                                                                                                                                                                                                                                                                                          2050 AAGAATATAGACCITAAATICAAAATCATIGIAACAGCATACAAGGAICTICCTCATGCT 2109
                                                                                1330 AAACTTCTGAATGACATTTTTCATATGTCTTTATTGGCGTGCGCCTCTTGAGGTTGTA 1489
                                                                                                                                            1870 TATCGGCTAGCCTATCTCCGGCTAAATACACTTIGTGAAAGGCTTCIGTGTGAGGACACA 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2110 GTTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAGAATACATTCTATTATAGTA 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2230 AGGCCCCTACCTIGICACCAATACCTCACATICCTCAAAGCCCTTACAAGTTTCCTAGT 2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2290 TCACCCTTACGGATTCCTGGAGGGAACATCTATATTTCACCCCTGAAGAGTCCATATAAA 2349
1270 CGAGTAATGGAATCCATGGTTAAATGAGAAGAAGAAGATTATGGATTGAAATTTTAGG 1329
                                                                                                                                                                                                     5 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1930 GAATTAGAACATATCATCTGGACCCTTTTCCAGCACCCTGCAGAATGAGTATGAACTC 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    735 ValGinGluThrPheLysArqValLeuTleLysGluGluGluTyrAspSerllelleVal 754
                                                                                                                                                                                                                                                                                    535 PhelleLysAlaGluGlyAsnLeuThrArqGluMetlleLysHisLeuGluArqCysGlu 554
                                                                                                                                                                                                                                                                                                                                                                 555 HisArgileMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLys 574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 595 ProLeuGlnAsnAsnHisThrAlaAlaAspMe(TyrLeuSerProValArqSerProLys 614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PheTyrAsnSerValPheMetGluArqLeuLysThrAsnIleLeuGluTyrAlaSerThr 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   775 ArgProProThrLeuSerProIleProHisIleProArgSerProTyrLysPheProSer 794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  795 SerProLeuArglleProGlyGlyAsnHefyrlleSerProLeuLysSerProLyrLys 814
                                      475 LysLeuLeuAsnAspAsullePhellisMetSerLeuLeuAladysAlalæusluVal 494
                                                                                                                                                                                                                                                                                                                                                                                                                                                  575 GluserLysAspArgGluGlyProThrAspHisLeuGluserAlaCysProLeuAsuLeu 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               615 LystysGlySerThrThrArqValAsnSerThrAlaAsnAlaGlufhrGlnAlaThrSer 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             655 TyrArqLeuAlaTyrLeuArqLeuAsnThrLeuCysGluArqLeuLeuSerGluHisPro 674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          675 GluteuGluHisflelleTrpThrteuPheGlnHisThrteuGlnAsnGluTyrGluheu 694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         715 LysAsnileAspLeuLysPheLysIleIleValThrAlaTyrLysAspLeuProHisAla 734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   815 IleSerGluGlyLeuProThrProThrLysMet.ThrProArqSerArqIleLeuValSer 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              635 AlaPheGlnThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysVal 654
                                                                                                                       495 MetAlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhe
                                                                                                                                                                                                     515 ProTrpIleLeuAsnValLeuAsnLeuLysAlaPheAspPheTyrLysValIleGluser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        695 Met ArgAspArgHisLeuAspGlnIleMetMetCysSerMetTyrGly11eCystysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                            9
                                                                                                                       ò
                                                                                                                                                           q
                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                          <u>2</u>
                                                                                                                                                                                                                                                                                    ć
                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ôγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ο̈́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
```

```
2530 TACSOTITICALALIGAAGGAICAGAIGAAGFAGATGGAAGIAAAGAIGTGGGAAGAGAG 2589
                                                                                    845 SerAspArqValleuLysArqSerAlaGluGlySerAsnProProLysProLeuLysLys 874
                                                                                                                                                                         875 LeuarntheAspileGluGlySerAspGluAlaAspGlySerLysHisLeuProGlyGlu 894
                                                                                                                                                                                                                                                              895 SerLysPheGlnGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysGln 914
845 (Dechyol)serphes),Thrsend J.,aPheslnLysIleAsislnMerValtysAsn 854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE **F INVENTION: MODIFIED RETINOBLASTOMA THMOR SHPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1,30
                                                                                                                                                                                                                                                                                                                                                                          915 LysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSIEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: 7.,2697
SEQUENCE DESCRIPTION: SEQ 1D NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Benedict, William F
Zbou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 22-Dec-1999
CLASSIFICATION: * Maknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            September 40, Application US/09469522
Parent No. US20020151461AL
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                " MPSIER READABLE FORM:
MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: 512/418-3000 TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 3461 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: CONKNOWN>
ALCHNEY ANTWN THESEMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: P.O. BOx 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INT RMATION FOR SEQ ID NOT 40: SEQUENCE CHARACIERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shi - Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repolact; linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 40, App.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     119-469-522-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                        2 THE SHE
                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                     Š
```

Length.

Aliqument Scores:

Pred. No. :

```
101 HeGystlePhefleAlaAlaValAspLeuClyAspMetSerPheThrTheThfeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141 SerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81 ValserSerValAspGlyValLesGlySlyTyrIleSlsLysLysLysSlsLesTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 ClanysAsanlleGlulleSerValHisLysPhePheAsancuLcuLysGlulleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201 AlaLysGlyGluValLeuGlnMetGluAspAspLeuVallleSerPhcGlnLeuMetLeu 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              754 CATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATATG 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301 AsnSert.euGlyt.euValThrSerAsnClyt.euProCluValGluAsnt.euSryt.ysArg 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  321 Tyr6lu6lu1leTyrLeuLysAsnLysAsFLeuAopAlaArqLeuPheLeuAopHicAsp 340
                                                                                                                                                                                                                   394 CTCTICARAMATICSAMASSACAISSAMCHAIAIAILISACACAACCACCACTICG 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        694 GCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTCTGTAAAGAA 75.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              281 HiscluCysAsnileAspCluVallysAsnValTyrPhciysAsnihelleProFhcMct 300
                                                                                                                                                 21 ProAlaProProProProProFroGluGluAspFroGluGlnAspSerGlyFroGlu 40
                                                                                                                                                                                                                                                                     41 AsplicuProLeuValArglicuGluPheGluGluThrGluGluProAspPheThrAlalicu 60
                                                                                                                                  1 MetProProLysThrProArglySThrAlaAlaThrAlaAlaAlaAlaAlaGluPro
                                                                                                                                                                                                                                                                                                                                        61 CysClnLysLcuLyslleProAspHisValArgGluArgAlaTrpLcuThrlrpGiuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        261 AlaArqileAlaLysGluLeuGluAsnAspIhrAraTlelleGluValLeuG,sLysGlu
                                                                                                                                                                                                                                                                                                                                                             US-09-026-459A-51 (1-928) x US-09-469 522-40 (1-3461)
            Conservative:
Mismatches:
Matches:
                                                  indels:
4595.50
            96.55%
96.44%
                                                95.78%
            Percent Similarity.
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                            234 -----
                                              Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ė.
                                                                                                                                                                   <u>q</u>
                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ÷,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ċ
```

ą	874		933
7.5 2.5 2.5	341	Eys thricondin thr Aspiser i cospiser Phediu thrillii i i i i i i i i i i i i i i i i i	360 993
5 a	994	AsinteraspoluciuvatasivatiteProProitsThrProvatargThrVatMetasii 	380 1053
ਨੇ ਤੇ	181 1054	The Hegland labermet Met The Legas nSer Alase raspstupers sergluas natural Hillith Hil	400
A G	401	HOSOTITE BOASHASHO'S THE VALASHEDLYSG LUSOT HOLOULYSA GVALLYS HILLER HELLER HER HELLER HELLER HELLER HELLER HELLER HELLER HELLER HELLER HELLER	420 1173
<u> </u>	421	AspiledlytyrilePhotyschetyscheAdlyssAlaValGLydbolyCysValGLu ETHELLHILLHILLHHHHHHHHHHHHHHHHHHHHHHHHHH	440
> 3 > 3	441	Decity Secriticand Tyricys Legity Valarque utyrtyrangvalmet Glusermet	460 1293
5	46.1	LeutysSerdiudludrateuserifedinasnehesertysLeuteuasnaspasn 111111111111111111111111111111111111	480 1353
<u>م</u> کے ع	481	DePoblismerSerteulendladysalateudluvalvalmeralathrtyrserarg	500 1413
<u> </u>	501	SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrpHeLeuAsnVal 	520 1473
7. O.Y.	521	AcudamicollysalatheasphtetythysvalileGluScrpheHeitsalaGluGly 	540 1533
à 3 3	541	Asufarthrarglumettletyshisbeuglumrqcysgluhismrqtlemetgluser 	560 1593
	561	LeualaTrpLeuserAspSerProLeuPheAspLeuIleLysGlnSerLysAspArgGlu 	580 1653
5 G	581 1654	61pProthraspHistonGluserAlaCysProtenasnicuProtenGlnasnasnHis   + + + + + + + + + + + + + + + + + +	600 1713
λ S	6.01 1714	ThiralaalaaspweityrlamserProValaraSerProLysLysClySetThrThr 	620 1773
5 da	6.21 1774	ArqValAsnSerThrAlaAsnAladluThrGluAlaThrSerAlaPheGlnThrGlnLys  ++++++++++++++++++++++++++++++++++++	640 ` 1833
5. 13.	6.4.1 18.44	ProtentysSet the Setteuser tenthely tystysvally ratheral by tenthely the coattent to the tenthely the tenthel	660 1893
	661 1894	Argueudsoffucteutysgludrqueuteuserfilmitsproffuceusfuffistlette 	680 1953
<u>۸</u>	6.8.1	TrpThrLeuPhwGlaffisThrLeuGlaAsnGluTyrGluLeuMetArgAspArgHisLeu     :  :  :	700

```
2314 GGAGGGAACATCTATATTTCACCCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTGCA 2374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2374 ACACCAACAAAAAIGACTCCAAGAICAAAATCIIAGIAIFAATIGGIGAAFFATFGGT 2433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2554 GGATCAGATGAAGCAGATGGAAGTAAACATGTGGGAGGAGAGTGGAAATTTGAGGAGAAA 2613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       760
1954 TGGACCCTTTTCCAGGACACCCTGCAGAATGAGIAIGAACICAIGAGAGACAGATTG 2014
                                 761 MetGinArqLeuLysThrAsnileLeuGlnTyrAlaSerThrArqProProThtLeuSer 780
                                                                                                                                                                                                                                                                                                   781 ProlleProHislleProArgSerProTyrLysPheProSerSerProLeuArallePro 800
                                                                                                                                                                                                                                                                                                                                                                       801 GlyGlyAsn11eTyr11eSerProteutysSerProtyttys11eSerGluGlyLeuPro 820
                                                                                                                                                                                                                                                                                                                                                                                                                                       821 ThrProThrLysMetThrProArgSerArglleLeuValSerTleGlyGluSerPheGly 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841 ThrSerGluLysPheGlnLysIleAsnGlnMetValCysAsnSerAspAraValLeuLys 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         861 ArgSerAlaGluGlySerAsnProProLysProLeuLysLysLeuArgPheAsplleGlu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        881 GlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSerLysPlacthellings 900
                                                                                                                                                                   741 ArgValleuHelysGluGluGluTyrAspSerHeHeValPhetyrAshserValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2674 GATACCTCAAACAAGGAAGAAA 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          921 AspThrScrAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 30, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xu, Hong-Ji
Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 0820020151461A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                   ô
                                                                                                                                9
                                                                                                                                                                   ò
                                                                                                                                                                                                 g
                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                    <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
```

```
46 LystinLenIrpGlyIleCysIlePheIleAlaAlaValAspLeuGlyAspMetSerPhe 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25 AspValLeuPheAlaLeuPheSerLysLeuGluArgThrCysGluLeuIleTyrLeuThr 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196 HerhreheteuteutalalysölyöluValleuGinMetGluAspAspLeuVallleSer 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        136 tyschulleAspThrSerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyr 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  176 GIRPLOSETSETSETILESETThTGluITEASNSETATALEUVALLEULySVALSETTTP 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37) CAACCCAGCASTTCSATACTACTACTGAAATAAATTGTGCATTGGTGGTAAAAGTTTGTTGG 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               56 Aspeller hratatieutystieutystieutystier romanna and general argeinargalarin 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26 i.eufhrlipGlutysValSerSerValAspClyValLeuGlyGlyTyrlleGlmLystys 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1
CURRENT APPLICATION DATA:
APPLICATION NUMBER PS, CO., 469, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-459A-51 (1-928) x US-09-469-522-30 (1 3392)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative.
Mismatches:
                                                                                                                                                       NAME: HIDLEY, David W.
REGISTRATION NOMBER: 41,071
REFERENCE/RACKET NUMBER: UEXC:506
:FLECOMMUNICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lengt.h:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels:
                                                                                                                                                                                                                                                                                                                                                                                                  SECUENCE DESCRIPTION: SEC ID NO: 30:
                                                                                                      APPLICATION NUMBER: 09/026,459
                                                 FILING DATE: 22-Dec-1999
CLASSIFICATION * HERBOWN>
                                                                                                                                                                                                                            TELEPHONE: 512/418-3000
FELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                              LENGIH: 3392 base pairs
                                                                                                                        FILLING DAFF: <Unknown>
                                                                                                                                     ATTORNEY/AGENT INFOPMATION:
                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO. 30:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                              IYPE: nucleic acid
SIRANDEDNESS: single
                                                                                     PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4489.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96.8.898
                                                                                                                                                                                                                                                                                                                                                   PoPoloGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93,568
                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY. CDS
                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                   FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1
```

```
1090 CTGAAAAGGAGGATATAGGATACATCITTAAAGAGAAATTTGCTAAAGCTGTGGGA 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1150 CAGGGTPGPGPGAAATTGGATGAGAGGATAGAAAGTTGGAGTTGGGTTGTAFFAGGA_ 1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1210 GTAATGGAATGCATGGTTAAATGAGAAGAAGGATTAIGCATTGAAAAIITTAGGAAA 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1450 ATCAAAGCAGAAAGGAAACTTGACAAGAGAAATGATAAAAGAITTAGAACGATGTGAACAT 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1570 TCAAAGGACGAGGAGCAGCAGTGATCACCITGAATCTGCTTGTCTCTTAATCTTCCT 1629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      970 AGGACTIGITTATGAACACTATCCAACAATTAATGATGATTTAAATTICAGGAAGTGATGAA 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1390 IGGATTCTGAATGTGTGTTAATTTAAAAGCCTTTGAITTITACAAAGTGAIGAAGGTTIT 1449
376 ArgThrValMet.AsnThrIleGlnGlnLeuMet.Met.IleLeuAsnSerAlaSerAspGln 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           396 ProSerGluAsnLeuiloSorTyrPheAsnAsnCysThrValAsnProLysGluSerile 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            456 ValMet@luSerMetLeuLysSerGluGluGluAraLeuSerlleGlnAsnPheserLys 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    476 LeufeuAsnAspAsnIlePheHisMetSerLeufeuAlaCysAlaLeuGluValValMet 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          494 AlaThrTyrSerArgSerThrSerGlaAsaLeuAspSerGlyThrAspLeuSerPhePro 515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        516 TrpiloLeuAsaValLeuAsaLeutysAlaFheAspFheTyrLysValiled, SerFhe 515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     576 SerLysAspArgGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuPro 595
                                                                                                                                                   610 GGTGAGAALAGAGGGATAGGAAAACAACTAGAAAATGATACAAGAATTATTGAA 669
                                                                                                                                                                                                                                                    670 GITCICIGIAAAGAACAIGAAIGIAAIAIAIAGAIGAAAAAAIGIIITAIIICAAAAAI 729
                                                                                                                                                                                                                                                                                                          296 PhelleProPheMetAshSerLeuGiyLouVaiThrSerAshGlyLouProGluValGlu 315
                                                                                                                                                                                                                                                                                                                                                          730 ITTALACCITITALGAATICTCTTGGACTIGIAAGAICIAALGGACTICCAGAGGTTGAA 789
                                                                                                                                                                                                                                                                                                                                                                                                             316 AssLeuSerlysArgTyrGluGluIleTyrLeuLysAsshLysAspLcuAspAlaArgLeu 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 336 PhoLouAspHisAspLysThrLeuGlnThrAspSerlleAspSerPheGluThrGlnArg 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     910 APAPPAPAAAAAAAATAAFPTAAFPAAGAGGGAATGTAATGPPPOPOGAGATGGAGTI 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     556 ArgileMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGln 575
                                                                                                                                                                                                 276 ValleuCystysGluHisGluC;sAsmileAspCluValLysAsmValTyrPhcLysAsm
                                                                                                                                                                                                                                                                                                                                                                                                                                                              790 AATCTTTCTAAACGATACGAAGAAATTTAICTTAAAAATAAAGATCTAGATGCAAGAITA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  356 ThrProatgiysSetAsnixaAspGiuGiuValAsnValiileProPtOHisthrProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              to ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                              30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

596 FoughhasmasmHisThrahaAlaAspMetTyrLeuSerProValArgSerProLysLys 615

0.7

```
2170 CCCCTACCTTGTCACCAATACCTCGAAAGCCTTAAAAAGTTGCTAGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1630 CHOYNAAIAALACACHGOAGAAIAIGIAIGIAHGHGHGHGHGGAAGAAAHAAAAAAA 1689
                                                                                           1690 AAAGGTTCAACTACGCGTGTAAATTCTACTGCAAATGCAGAGACACAAAAGCAAAACCTCAGCC 1749
                                                                                                                                                                                                                               2050 CAGGAGACATICAAACGIGIIIIGA CAAAGAAGGAGIATGA LUIAHATAGIATIC 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25.40 AAATTICAGCAGAAAACTGGCAGAAAAGTGTCTACTCGAACACGAATGCAAAAAGCAGAAA 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2470 FGCTTTGALATEGAAGGALGAGAGGAGGAGGAAGTAAAGAFGEGGGAGGAGGGGGEGG 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            756 TyrAsnSerValPheMetGlnArqLeuLysThrAsnIleLeuGlnTyrAlaSerThrArg 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                776 ProproThrLeuSerProlleProffisIleProArqSerProTyrLysPheProSerSer 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             616. LysGlySerThrThrArqVaTASnSerThrAlaAsnAlaGluThrGlnAlaThrSerAla 635
                                                                                                                                                                                                             656 ArgleuAlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHiSProGlu 675
                                                                                                                                                                                                                                                                                     676 LeugluHisllellefrplhrLeuPheGlüHislhrLeuGlnAsnGlüTyrGlüLeuMet 695
                                                                                                                                                                                                                                                                                                                                                             696 ArgAspArgHisLeuAspVilnIleMetMe*OysSerMe*TyrOlyIleOysLysValLys 715
                                                                                                                                                                                                                                                                                                                                                                                                                                      716 AsnileAspLeuLysPheLysIleIleValThrAlaTyrLysAspLeuProHisAlaVal 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  736 chudhathrehetysArgValLeutletysGluGluGluTyrAspSerffelleValPhe 755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              796 ProLeuArgileProGlyClyAsnileTyrileSerProLeuLysSerProTyriysile 815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        816 SerGluGlyLeuProThrProThrLySMetThrProArgSerArgIleLeuValSerIle 835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         856 AsparqVallzeutysArgSerAlaGluGlySerAsnProProLysProfeutysLysLeu 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   876 ArqPheAspileGluGlySerAspGluAlaAspGlySerLySHisLeuProGlyGluSer 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               896 LysPhetludlnLysLeuAladluMetThrSerThrArgThrArgMetGlnLysGlnLys 915
2590 ATGAATGATAGCATGGATACCTCAAACAAGGAAGAAA 2628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           916 Met Ash Asp Ser Met Asp 1 hr Ser Ash Lys Glu Glu Lys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 46, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. 0S20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US 09 469 522 46
                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
```

```
21 ProAlaProProProProProProProGluGluAsp@oGluGluAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41 AspteuProteuValArgteuGluPbeGluGluThrGluBluProAspPhe)hrAlateu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 CysGlnLysLeuLysIleProAspHisValAraGluAraAlaTrpLeuThrTrpNluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. {\tt MetProProLysThrProArgLysThrAlaAlaAlaAlaAlaAlaAlaAlaAlaBluPro.} 20
                                   TITLE OF INVENTION: MODIFIED RELINOBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SYTWAKE: Pateriin Release #1.0, Vorsion #1.40
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-026-459A-51 (1-928) x 98 99 469 522 46 (1 3377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Courserval ive:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches:
                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 05/05/469.522
FILING DATE: 22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: 7..2613
SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 41,071
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: < Unknown>
                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
                                                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 3377 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: <Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                        STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                 David W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE, nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                      NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                            COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4444.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93,438
93,218
92,638
10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
                                                                                                                                                                                            77210-4433
                                                                                                                                         CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Hibler,
                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                            STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-469-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q:
---:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
```

ئے ہے	10.7	<pre>100</pre>	120 366
रू <i>के</i>	141	GIBLYSASBILEGIUILESEYVALHISLYSPREPREASBLEULEULSGULULEASPTRE 	140 426
	141	SeribriysvalAspasnalaMetSerArgi.eui.eui.ysi.ysiyraspVall.euPheAla 	160 486
	1.51	LeupheserLysLeugluArgThrCysGluLeuIleTyrLeuThrGlnProSerSerSerSer 21	180 546
	181		200
	to to U	ATG	549
	ā i	AlalyselycluVallendlnMetGluAspAspleuVallleSerPheClnLouMetLou	220
	543	**svalleuAseTvrPholleLvsLeuSerProProMolleuLeuLeuAseTvrPvsTvs	549 240
	il.		549
् स	241 950	ThrhiaVailleProlleAsnGlySerProArgThrFroArgArgGlyGlnAsnArgSer 	260
	26.1	A 14 A 7 G TO A 1 A 1 J S CHOLOG CHOAS NASPTHY AND THE HILL HILL HILL HILL HILL HILL HILL HI	280 669
sa a	281 670	HisdlucysasolleaspsluvalLysasovalTyrPhcLysasoPhelleProPheMet 	300 729
	4.0.1 7.40	Ash Seriengly ental Three rasidithen Profitatioluass Louser LysArg	320 789
	321	[yrchuc]ullefytLeutysAsntysAspLeuAspAiaArgLeuPheieuPheieuAspHisAsp 	340 849
<u>₹</u> ₽	541 850	LysThrleudlaThrAspSerTleAspSerPheGluThrGlaArgThrProArgLysSer 	909
	7 3	AsulewAspGluGluValAsnVallleProProHisThrProValArqThrValMetAsn +	90
	- 0	BritedingInLeumermertlelenasnSeralaSeraspGinProSerGiuasnieu 	0
	401	1   ESELTY: PheAsnAsnCycThrValAonFroCysGluSerII   ELECTYSAFGValLys 	420 1089
شہ حد	421 1090	ASPILIONI) YIYLILOPBELYSGI OLYSBASALALYSALAVALOLYGISGI YGYSVALGIU 	14
× .a	- E		09 20

```
1510 CTTGCATGGGTGTGAGATTGAGGTTTALLIGATGTLALIAAACAATGAAAGGAGGAGGAGAA 1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1630 ACTGCAGTAGATATGTATCTITCTCCTGTAAGAICTCCCAAAGAAAAAAGGTICAACTACG 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (270 ATTTTTCATATGTGTTTATTGGGGTGGTGGTGAGGTTGTAATGGGGGACAIATAGGGGAGA 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1990 TICAAAATCATIGTAACAGCATACAAGGAICTICCTCAIGCIGTICAGGAGACATICAAA 2049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2110 ATGCAGAGACTGAAAQAAATATTTTGAGTATGC11CCAGCAGGCCCCCTAGC1G1CA 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2170 O'ANINOLONIA DOLDONANGO OLINGANIA OLINGAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2050 ÖGÜĞITITICALCAAAGAAGAĞĞAĞTALGAHTÇTALTALAĞTATTĞTATAAÇTÇĞĞTÇTI 🗥 2109
                                                                                                                                                       481 IlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThrIyrSerAig 500
                                                                                                                                                                                                                                                                                                                   501 SerThrSerGInAsnLeuAspSerGIyThrAspLeuSerPheProTrpl1eLeuAsnVal 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  621 ArgValAsnScrührAlaAsnAlaGluThrGlnAlaThrScrAlaPheGlnThrGlnLys 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     641 ProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArgLeuAlaTyrLeu 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            701 AspGlnIleMetMetCysSexMetTyrGlyIleCysEysValLysAsnIleAspLeuLyc 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74) Argvaliculietys6tuGluGjuTyrAspSerf1EtHevalPhetyrAsnSerValPhe 760
461 LeuLysSerGluGluGluArgLeuSerIleGlnAsnPheSerLysLeuLeuAsnAspAsn 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    681 TrpThrieuPheSinHisThrLeuGinAsnSluTyrClut.cuMetArgAspArgHist.cu 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721 PheLysile!!eVa!ThrAlaTyr!.ysAspleuProHisAlaVa!CInGlaThrPhcLys 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   761 Met.GInArqLeuLysThrAsnIleLeuGlnTyrAlaSerThrArqProProThrLeuSer 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 Profich unistieProAngSerProTyntysPheProSerSerProLeuArdilePro 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              821 ThrProThrLysMetThrProArgSerArgIleLeuValSerIleGlyGluSerPheGly 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               521 LeuAsnLeuLysAlaPheAspPheTyrLysValIleOluSerPheIleLysAlaSlusi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541 AsnLeuThrArgGluMetIleLysHisLeuGluArgCysGluHisArgIleMetGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1450 AACTTGACAAGAAAATGATAAAAACATTTAGAAACGATGTGAACATCGAATCATGGAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601 ThralaAlaAspMctTyrLeuSorProValArgSorProTysLysLysClySorThrth:
â
                                                                                                                                                   οy
                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΟŽ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            οÿ
```

```
2410 AGAASTGCTGAAGGAAGCCTCCTAAACAAAAAAAAAACIACGIITGATATTGAA 2469
                                                                                                                                                                                                                                                                                             2470 GGA FGAGA FGAAGCAGAFGGAAG FAACA FCFGCGGGGAGGAGFFCCAAFFFFGAGCAGAAA 2529
                                                                                                                                                         861 ArqSetAlaG1961ySetAsnProProLysProLouiysLysLouArqPheAsp11eG1u 880
                                                                                                                                                                                                                                                881 GlySerAspGluAlaAspGluSerIysFisLeuProGlyGluSerIysPheGlnGlnIys 900
                                                                    841 ThrSerGluLysPheGluLysIleAsnGlnMetValCysAsnSerAspArqValLeuLys_R60
                                                                                                                                                                                                                                                                                                                                       901 LeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DAIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Der-1999
CLASSIFFOATION - 7URKNOWN >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: 7..2619
SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2590 GATACCTCAAACAAGGAAGAAA 2613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                 921 AspthrSerAsntysGluGlutys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application Us/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 3383 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY ZACENT INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 512/418-500
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEC ID NO: 48: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No. USZÜÖZÜIS1461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US 09 469 522 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08 09 469 522 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 48,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
                                                                                                                                                         5
                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                          3
```

```
161 LeuPheSertysLeuGluArgThrCysGluLeu1leTyrLeuThrGLnProSerSer 180 H1H1H1H1H1H1H1H1H1H1H1H1H1H1H1H1H1H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              735
                                                                                                                                                                                                             101 IleCysilePhelleAlaAlaValAspLeuGlyAspMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 GlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeuLysGluIleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141 SerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       487 CTCTTCAGGAAATTGGAAAAGGACATGTGAACTTATATATTTGACACAACCCAGTTCG 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 IleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThrPheLeuLeu 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 ThralaValileProfleAsnGlySerProArqThrProArqArqClyGluAsnArqSer 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261 AlaArgileAlaLysGlnLeuGluAsnAspThrArgileileGluVulLvuCyGLysGlu 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       281 HisCluCysAsnIlcAspCluValLysAsnValTyrPhcLysAsnPhc11eProPheMet 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   735
                                                                                                                                                                                              21 ProAlaProProProProProGluGluAspProGluGluAspSerGlyProGlu 40
                                                                                                                                                                                                                                                    41 AspteuProteuValArgteuGluPheGluGluThrGluGluProAspPheThrAtateu 60
                                                                                                                                       1 Met.ProProLysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                61 CysGlnLysLeuLysIleProAspHisValArqGluArqAlaTrpLeuThrTrpGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201 AlaLysSlyGluValLegGlaMetGluAspAspLegValIleSerPhetLinguartLeg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 221 CysVallewAspTyrPhelletysLeuSerProbhemheutheuthulgsdluhmalystys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-026-459A-51 (1-928) x US 09 469 522-48 (1-3383)
                                      Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches:
                                                                   Indels:
                          4437.50
                                      93.75%
93.64%
                                                                   95.498
                                                      Best Local Similarity:
                                       Percent Similarity:
Alignment Scores:
                                                                   Query Match:
DB:
                                                                                                                                       á
                                                                                                                                                                                              ò
                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                đạ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                  ĉ
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ä
```

340 855	360	380	400	420 1095	<b>44</b> 0 1155	460 1215	480 1275	500	520 ` 1395	540 1455	560 1515	580 1575	500 1635	620 1595	640 1755		680 1875
	tysThrLeuGluThtAspS 11111111111111111 AAAACICTICAGACTGATT	AsnLeuAspGluGluValAsnValIleProProHi  - - - - - - - - - - - - - - - - - - -	ThriteGinGinicumctMetileLeuAsnScrAlaSerAspGinProSerAsinIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	LeSerTyrPheasinasingysThrivalasipholysGluser 	AspiledlytyrilePhebysglubysPheAlabysAlaValGl 		TeutysSerGTuGTuGTuArgteuSerTTeGTnAsnPheSerty 	TefledisMetSetLeuLeuAlaCysAlaLeuGluValValMe 	Ser PhrSer ClinasnicuaspSei ClyThraspte   FELLET   FELLET	CCBABILCULTSATARBASPINCTTTL/SVATITCCTUSErPhetTe 	AsnLeuThrArgGluMetIleLysHisELeuGluM  ++++++++++++++++++++++++++++++++++++	.cualairpteuSerAspSerProteuPheAspLeufleuysGir 	Prothrasphisteudluseraladyspra.u. 	aAspMetTyrLeuSerProValArqSerProLysLys 	NTAASIA GUUDING BAATATSERATAPA TITTITITITITITITITITITI SAAATA AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	ProteutysSerffrBG 	Ardicada:ThrLeacysSilandLaboulou 
796	341	361 916	381	431	421 1096	441	461	481 1276	501	C+ 35	541 1456		581		621 1696	641 1756	6.6. 1816
45 05 05	97 05	<u> </u>	5 G	6. 9.	47 qc.	40 40	5 ck	25 GH	oy up	ag c	5 g	cy.	C.Y.	. A.	5. 2. 2. 2. 3.	97	5 g

```
2056 CGTGTTTTGATFAAAGAGAGAGGATCTATTATAGTATCTATAAACTCGGTCTTC 2115
                                                                                                                                                                                                                                                                                                      2116 ATGCAGAGACTGAAAACAAATATTTTGCAGTATGCTTCCACCAGGCCCCCTACCTTGTCA 2175
                                                                                                                                                                                                                                                                                                                                                    2356 ACTICIGAGAGAGTICCAGAAAATAAATCAGATGTGAACAAGGAAGGGACGTGTGGCTCAAAA 2415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . 2476 GGATCAGATGAAAGAAGAAGAAAGATCTCCCAGGAGAGTCCAAAATTTCAGCAGAAA 2535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2416 AGAAGTGCTGAAGGAAGGAACCTTCTTAAACTGAAAAAAACTAGGTTTGATATTGAA
                                                                                                                                                                                                             741 ArgValLeulleLysCluGluGluTyrAspSerllelleValPheTyrAsnSerValPhe 760
                                                                                                                                                                                                                                                                                   761 MetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSerThrArgProProThrLeuSer 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 821 ThrProThrLysMetThrPrcArgSerArgIleLeuValSerIleGlyGluSerFheGly 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          861 ArgSerAlaGluGlySerAsnProProLysProLeuLysLysLeuArgPheAsp11eGlu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         881 GlySerAspGlwAlaAspGlySerTysHisLeuProGlyGluSerLysPheGlnGlnLys 900
                                                                      701 AspGlnIleMetCysSerMetTyrGlyIleCysLysValLysAsnIleAcpLeuLys 720
                                                                                                                                          721 PheLys1leIleValThrAlaTyrLysAspLeuProHisAlaValGlnGluThrPheLys 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841 ThrSerGluLysPheGlnLysIleAsnGlnMetValCysAsnSerAspArqValLeuLys 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901 LeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhou, Yutiî
TITLE OF INVENTIÔN: MODIETED REFINÓRIASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE, Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Benedict, William F. Zhou, Yunii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2596 GATACCTCAAACAAGGAAGAAA 2519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7 Sequence 42, Application US/09469522
7 Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      921 AspThrSerAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-U9-469-522-42
                                                                      δ
                                                                                                       q
                                                                                                                                          ò
                                                                                                                                                                            qq
                                                                                                                                                                                                                                              â
                                                                                                                                                                                                                                                                                   Ö
                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                            ΟΣ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Óζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
```

```
161 IleCysIlePhelleAlaAlaValAspLeuGlyAspMet.SerPheThrFheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 GlntysAsnitoGlulleSetValHisLysPhePheAsni.euLeuLysGlulleAspfhr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141 SerthilysValAspAsnAlaMetSerArqLeuLeuLysIySTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161 teuPhesertysLeugluArgIhrtysGluLeulleTyrLeuThrGlnProserSerser 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41 AsptæuProLeuValArateuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MetProProLysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
              OPERATING SYSTEM: PC DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US 09 026 459A 51 (1 928) x US-09-469 522 42 (1-3447)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative:
Mismatches:
                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: UTXC:506
IELECHOMMUNITATION INDOMALION:
IELECHONE: $12/418-3000
IELECHAX: $12/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches:
                                                                          APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     407 APCTGTATCTTTATEGCAGIAGITGACCTAGTCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lengt.h:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 7.,2583
SEQUENCE DESCRIPTION: SEQ ID NO. 42;
                                                                                                                               PKIOR APPLICATION DATA:
APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps:
COMPUTER: IBM P. Compatible
                                                                                                                                                                                                             NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                        LENGTH: 4447 base pairs
                                                                                                                                                                        FILING DATE: + Unknown>
                                                                                                                                                                                             ALTORNEY ZACIENT INFORMALION:
                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 42: SEQUENCE CHARACTERISTICS:
                                                     CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                          TYPE: pucleic acid
SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4398.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92.458
91.678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  42.468
                                                                                                                                                                                                                                                                                                                                                                                                                                   FOPOLAXY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity;
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Aliquament Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US U9 469 522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           President No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
```

qq	342		747
Qy	181	HeSerThrGlu HeAsnSerAlaLeuva LeutysVa ISerTrp Heithr Pheteutzu	200
a c	3.43	TCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTCGTGGATCACALTTTTTT	668
'n	201	201 AlatysclyclaValLeuGlaMetGluAspAspEeuValTlesArtFhadlaik aMetLeu 220	077
<b>q</b> a	400	GCTAAAGGGAAGTATTACAAATGGAAGATGATGTGGTGTTTTATTTA	454
Ğ	221	CysVall.cuAspTyrt2c1	240
qa .	460	TGTGTCCTTGACTATTATTAAACTCTCACCTCCCATGTTGCTCAAAGAACCATATAAA	513
. oy	241	Thrataval HeproHeasnGlySerproatqThrProarqatqUgGlnasnArqSer	260
qa :	520	ACAGCTGTTATACCCAT FAATGGTTCACCTCGAACACTTADGCGAGGTCAGAAAAGAGAGT	623
ćο	261	AlaArq11eAlaLysGlaLeuGluAsnAspThrArq11e11eGluVallearystysGla	280
qu	580	GCAGGGATAGCAAAACAAATTAGAAATTGATAGAAATTATTGAAGTTGTTGTAAAGAA	6.8.9
οy	281	HisGlufysAsnileAspGluVallysAsnVallyrPhetysAsnPhetleProPheMet	30€
qq	640	CATGAATGTAATATAGATGAGGGGGGGAAAAATGTTATTGAAAAATTTTATATG	569
ō	301	AsnSerLead! yteuVal Thr Ser AsnClyLeaProClaValClaAshLeaGerLysArg	071
qu	700	AATTCTTTGACTTGTAACATCTAATGGACTTCCAGACTTGAAATCTTTTTAAACG	456
ò.	321	TyroluglalleTyrLeaLysAsaLysAspLeuAspAlaArqLeaPheteaApiisAsp	440
qu	760	TACGAAGAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTTGGATGATGT	8 5
Qy	341	Lysthricuslinthraspsort Heaspsorthestarhisthrathrian of a system	3.6()
qq	820	AAAACICTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAACACAGGAAAAAGT	87B
ОУ	361	AsnicuAspGluGluValAsnVallTeProProHisThrProValArdThrValMetAsn	¥
đ	880	AACCTTGATGAAGAGGTGAATGTAATTGCTGCACACTTGCGTTAGGACTGTTATGAAG	4 3 4
ò	381	ThrileGlnGlnLeuMetMet.HeleuAsnSerAlaSerAspclnProSerGluAsnLeu	400
qu	940	ACTATICGACAATTAATGATGATTITAAATTGAGGAAGTGALGAAGTTTAAGAAATGTG	4.6.6
ςλ	401	HeSerTyrPheAsnAsnCysThrVaTAsnProtysGluserTReLenLysArqVaLLys	4.20
qq	1000	ATTECTATTTAACAACTGCACAGTGAATCCAAAAGAAAGTATACTGAAAAGAGTGAAG	1059
όy	5	Aspited ytyr HerberysologysthealaysAtaValayalatur	440
qq	1060	GATATAGGATACATCTTAAAGAGAAATTTGCTAAAGCTGTGGGACAGGTTGTGTCGAA	9111
ò	441	IledlySerOlaArgTyrLysLeadlyValArgLeuTyrTyrArgValMetGluSerMet	460
qo	1120	ATTOGATCACAGGATACAAACTTGGAGTTCGCTTCTALTACCAGTAATGGAATCCATG	1179
$0\bar{y}$	461	LeubysSerGluGludludrgLeuSerTleGlnAstiPheserDysLeubenAstiAspAsn	98€
qq	1180	CTTAAATCAGAAGAAGAAGATTATCCATTCAAAATTTTAGCAAACTTCTGAATGACAAC	1249
ÓΥ	481	TelbhettsMetSerLeuLeuAlacysAlaLeuGluValValMetAla1br191SerArg	500
qo	1240	APTITITEATAIGTETTTATTGGCGTGGGCTCTTGAGGTTGTAATATATAGAGAG	1299
ς	501	SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrplleLeuAsnVal	520
qu	1300	AGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTCCCATGGATTCTGAALGTG	1359
Oy	521	LeuAsnLeuLysAlapheAspPheTyrLysVallTeGTuSerPheTerLysAlaGTuGTy	540

1360 CITAALITAAAAGCCIITGAIITITACAAAGIGAAGITTITATGAAAGCAGCA419

a

```
QQ
                                                                                                                                                             ò
                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            00
                                                                                                                                                                                                                                                                                                                                                                                                           | Feltonalaaspwett; | Leuger Fluyalarsser Fluysser; | Setting | 629 | Feltons | Felton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1868 - SIGIRAATICIACIGGAAAGGAAGAAAAAAAAAAAAAGGI DOGAAAAGGAAAAA 1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    172) CATIGAAAICTACCICTCTTTCACIGITITATAAAAAAGIGIATCGGCTAGCCIAICIC 1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1840 IGGACCCITIICCAGCACACCCIGCAGAAIGAGIAIGAATIMATAMAMAMAGAIITG 1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.85 ATGCAGAGACIGAAAACAAATATITIGCAGTATGCTTCAGAGAGAGAGAGAGTACTIGICA 2139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232. AYTHERGADAAGTEOGAGAAAAAAAAACAGATGGTATGTAAGAGGAGGAGGTGTGGGGGAAA 2379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2380 AGAAGTGCTGAAGGAAGGAAGCCCTCCTAAACCACTGAAAAACTACGCTTTGATATTGAA 2439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  621 ArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (4) FrolemlysSerbrise LeuSerleuBbeTyrtyslysValTyrargleuAlaTyrLeu (60)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     741 ArqValLeuIleLysGluGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841 ThreapthorysPheathorys13-AsserthorysAssassatory11.5-01.ys 850
541 AsnleuThrArqGluMet.11eLysHisLeuGluArqCysGluHisArq11eMet.GluSer 560
                                                                                                                                                                                                   561 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGlnSerLysAspArgGlu 580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661 ArqLeuAsnThrLeuCysGluArqLeuLeuSerGluHisProGluLeuGluHisIleIle 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TrpThrLeuPheGloHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArgHisLeu 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72) PherysilelleValihrAlaTyrLysAspLeuProHisAlaValGloSluThrPheLys 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   761 MetGInArgLeutysThrAsnileLeuGloTyrAlaSerThrArgProProThrLeuSer 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781 FrolleProHisIleProArqSerProTyrLysPheProSerSerProLeuArqIlePro 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    801 31yClyAssileTyrileSerProleuLySSerProTyrLysIleSerCluGlyLeuPro 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82i ThrProThrLySMetThrProArqSerArqHeLeuValSerHeGlyGluSerPheGly 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             861 AraserAlaGluGlySerAsuProProLysProLeuLysLysLeuArgPheAspIleGlu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      881 01ySerAspGluAlaAspGlySerLySH1sLeuProGlyGluSerLysPheGluGla1ys 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
```

```
2500 CTGGGAGAATGAGTTGTAGTGGAAGAGGAAAAGGAAAAGGAGAAAATGAATGATAGGATG 2559
901 LeuAlaGluMetThrSerThrArgThrArgThrArdMet.GlnLysOlnLysMetAshAspSerMet 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99 TrpGlylleCysllePhelleAlaAlaValAspLeuGlyAspMetSerPheThrPheThr 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                        COMPUTER: IBM PC compatible OPFFATING SYSTEM: PC-F0/S/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3323
848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-026-459A-51 (1-928) x US-99-469 522 32 (1-3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/LOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSHE, Arrold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER, 08/03/469,522
PILING DATE: 22-Dec-1999
CLASSIFICATION, CONNOWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION: 7..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 32:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                       Benedict, William F.
Zhou, Yunli
                                                                                                                            2560 GATACCTCAAACAAGGAAGAGAAA 2583
                                                                                                                                                                                                                Sequence 32, Application US/09469522
Patent No. USE0020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                 921 AspThrSerAsnLysCluCluLys 928
                                                                                                                                                                                                                                                                                                                                                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGIH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION: NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 32:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleic acid
                                                                                                                                                                                                                                                                                  AFFLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                       Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4357.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99.768
90.818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Z1P: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similari'y:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aliqnment Scores:
                                                                                                                                                                                            US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-469-522-32
                                                                                                                                                                       RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

7 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

qq	1150	TCCATGCTTAAATCAGAAGAAGGATTATCGATTCAAAATTTTAGCAAACTTCTGAAT 1209
ò 5	479	ASPASUITEPHEHISMELSELLEULEUATaCysAlaLeustuvatValMetAtaThrTyr 498 
οy		SetArqSet thr SetGlinAsnica Aspect Olythr Asplication principal telegraphs 518
Op	1270	AGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTCCCATGGATTCTG 1429
ò q	519 1330	AsnValLeuAsnLeuLysAlaPheAspPheTyrLysVallleGluSerPhelleLysAla 548 
Ś		GluGlyAsnLeuThrArgGluMet1leLysHisLeuGluArqCysGluHisArq1leMet 558
qq	1390	GAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACATCGAATCATG 1449
QY Db	559 1450	GLUSCFLeualaTrpLeuScraspScrProteuPheaspteuTletysGluScrtysasp 578 []
QV Db	579 1510	ArgGluGlyProThrAspHisLeuGluSerAladysProLeuAsuLeuProLeuGlnAsn 598 
ςλ	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	AsoHisThrAlaAlaAspMetTyrLeuSerProValAraSerProLyotystystlySer 618
qq	1570	AATCACACTGCAGCAGATATGTATCTTCTCCTGTAAGATCCCCAAAGAAAAAAGGTTCA 1629
Oy Dh	619	619 ThrubrargVaTAsinSerThraTaasinATaGTuThrGTnATaThtiSerATathedInithr 638 
à đ	639	GINLYSPICLEGLYSSETTHISELFUSETLEUPHETYTLYSLYSVALTYIAIGEGALU 658 
ò á	659	TyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGluHis 678
ογ	679	
qq	1810	ATCATCIGGACCCTTTCCAGCACCCCGCAGATATGATATG
y du	1870	Histeuaepolnilemetmetoyssermettyrolytleoystyovaltysasnileasp 718 
ò	719	LeuLysPheLysTle11eValThrAlaTyrLysAspLeuProHisAlaValGlnGluThr 738
qq	1930	CTTAAATTCAAAATCATGTAACAGATACAAGGATCTTCCTCATGCTGTTCAGGAGACA 1989
0y Pr	739 199ñ	PhotysArgValLoulletysCludludlufyrAspSerffellevalthetyrAsnser 758 [HTHILLIHITHILLHIHIHIHIHIHIHIHIHIHIHIHIHI
ό	. 759	ValPheMetGlnArqLeuLysThrAsnileLeuGlnTyrAlaSerThrArqProFroThr 778
q	2050	THEFTHEFTHEFTHEFTHEFTHEFTHEFTHEFTHEFTHEF
5 6	779	LeuSerProlleProHisileProArgSerProTytLyspheProSerSerProLeuArg 798
3 (	0117	TOTCACCAMINACETCACATICCTICAMAGECULIACAMAGITECTIAGITE ACCUTAGOS ZED
A G	2170	TETTOOTOOTS TASKE TEST TESCETTOOTOOTS OF THE THEFT THE TEST TOOTOOTS TEST TEST TOOTOOTS TEST TOOTOOTS TEST TOOTOOTS TOOT
ò	819	LeuProThrDysMetThrProAraSerArq11eLeuValSer11eGlyGluSer 838
qc	2230	

```
235. CONTROL TO THE FIRST OF THE FIRST TO THE TANGEN OF THE THE TOTAL TO THE TANGEN OF THE TANGEN OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241. ATTGAAGGATCAGATGAAGCAGATGGAAGTAAACATCTCCCAGGAGAGTCCAAATTTCAG 2469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2470 JAGAAACTOCCAGAATGACTFCTACTCGAACAAGGAAAGCAGAAAGTGAAATGAATGAT 2529
                                                                                                                                                                                                                                                                                                                                                                                                                              879 lledindlyserAspClaAlaAspClyScrlysHisLouProClyCluScrlysPhcGln 898
                                                                                                                                                                                                                       859 LeulysArdserAladludlyserAchProProLysProLeulysLysLysLeuArgPbaAsp 878
with PhedlyThrSerGluLysPheGluLysIleAsnGluMetValCysAsnSerAspArqVal 858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     899 \cdot 31 nLysLevalaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAsp \cdot 918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OFERALIN: SYSTEM: PC-DoS/MS-DOS
SOFIWARE: Patontin Polosso #1 0, Version #1 30
CORREN) APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Arbold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/469.522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/INCRET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25.40 AGCATGGATACCTCAAACAAGGAAGAAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             419 SerMetAspThrSerAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 7..2559
STGUENCE DESCRIPTION: SEQ. OF NO. 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TLING DATE: 22-Dec-1999
TASSIFICATION: * Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 77210-4433
ZIP: 77210-4433
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 48, Application 08,709469522
Patent R.: USZ0620151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGIH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: <Unknown>
ALIGENEY ZAGENE INFORMATION+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Hibler, David W. REGISTRATION NUMBER: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEC ID NO: 38: SPORTED SPORTENCE CHAPACITEPIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANI: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shi - Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SECUENCES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ϋ́Х
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME / KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09 469 522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34-464-522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                               5
```

Length:

Allument Scores:

Pred No.

```
81 ValSerSerValAspSlyValLemJlySlyIrilleSinLySLySLySSlaLeuIrpSiy 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----GTCGACCTAGAIGAGAIGICGTICACTITIACIGAGCIA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 CirtysAsmileChaileSerValHistysPherbeAsmicalcolysChaileAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            201 AlalysGlyGluVallenGlnMetSluAspAspLeuVallleSerPheGlnLeuMetLeu 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221 CysVallouAspTyrPhollolysLouSerProProMetLeaLoulysClubrolyrLys 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         321 TyrgluglufleTyrLeuLysAsnLysAspLeuAspAlaAraLeuPheLeuAspHisAsp 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101 HeCysllePhelleAlaAlaValAspLeuGlyAspMetSerPhelhrPhelhrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161 LearheSerLysLeuGluArgThrCysGluLeufleTyrLeuThrGlnProSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 256 FIFTFFARGAAATIGGAAAGGAATAGTGAAQIIAIAIAIIIGAGAGACACCCAGCAGITGG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 ThralaValileProlleAsnGlySerProArgThrProArgArgGlyGlhAsnArgSer 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            281 HisGluCysAsplicAspCluVallysAspVallyrPhGlysAspPhGellcProPheMet 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 AsnSerLeuClyfleuValThrSerAsnGlyfleuProGluValGluAsnLeuSerflysArg 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    676 ARTICITITGACTIFCIAACAICTAATGGACTICCAGAGGITGAAAAICTITICLAAACGA 735
                                                                                                                                                                 21 ProAlaProProProProProProGluGluAspProGluGluAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                 41 Aspt.cuProt.cuValArgt.cuGluPhcGluGluThtGluGluProAspPhcThrAlal.cu 60
                                                                                                                                                                                                                                                                                                                                                                       61 CysGlnLysLeuLysTleProAspHisValArgGluArgAlaTrpLeuThrTrpGluLys 80
                                                                                                                                               1 MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaCluPro
                                                                                                                                                                                                                                           US-09-026-459A-51 (1-928) x US-09-469-522-38 (1 3323)
               Conservative:
Mismatches:
Matches:
                                                        Indels:
4323.50
91.598
                                 91.498
90.118
                                                                                                                                                                                                                                                                                                                                                                                                            ------ 96
                             Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---- 96
                                                                                                                                                                                                                                                                                                                                    ----- 96
               Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----- 26
                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                 ò.
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                        =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
```

				ស	īc.	رم م	, 5	r	Ŋ	'n		S	رم د	2	2	2	ιc:	
795	360 855	380 915	400 975	420 103	109	460 115	480 121	500	520 133	540 139	560 145	580	157	620 163	640 169	660 175	680 181	700
HILLILLILLILLILLILLILLILLILLILLILLILLILL	DysthileuGlidhraspsortHoaspScrbbeGlothrGinargthrProarglysScr 	. AsutemAspetuchuValAsuVallieProProHisThrProValArgThrValMetAsn 	ThribedhabhleewetMetileleadanserAlaSerAspGhproSerGhashlee 	HesertyrpheasnasnaysthrvalasnbrolysGluScritchenysargvallys 	- Aspillediytyrilephetyschubysphealabysalavaldiydindlygysvaldiu 	. II-GLyserGlnArgTyrLysLeuGlyValArgLeuTyrTyrArgValMetGluSerMet.    -  -  -  -  -  -  -  -  -  -  -  -	LeutysSertInG nG nArgLeuSertLeG nAsnPheSerLysLeuLeuAsnAspAsn 	HephellisMetSerLententAlaCysAlaLenGluValValMetAlaThrTyrSerArg   HTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	SerThrSerGlaAsnLeuAspSerGlyThrAspLeuSerPheProTrpIleLeuAsnVal 	TeuAsnteutysAlapheAspPertyrtysValiteGluSerPhetletysAlaGluGly 	- AsniveThracgGluMetlleLysHisLeeuGluargCysGluHisArgIleMetGluSer 	LeualatrpleuseraspserproleuPheaspleullelysGlasorlysaspargGlasorlys	GlyprofbraspHisteuGluserAlacysprofeuasnLeuProfeuGlnasnAsnHis 	ThralaalaaspwetTyrleusefPrevilArgsefProLysLysLysClyselthrift 	ArqValasnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys 	ProtectiysSerthrSerteuSerteuPhetyrtystysValtyrArgleuAlafyrteu 	. ArglesdashThrlenGysGludrglesdesserGluHisProGlulesGluHisTleTle 	. TrpThrLeuPheGloHisThrLeuGloAssoGluTyrGluLeuMetArgAspArqHisLeu 
7.46	341	361 856	916	401	421	441	461	481	501	521	541 1396	561 1 <b>4</b> 56	581	601 1576	6.21 16.86	641 1696	661 1756	681
40	0.7 Eds	5 G	do Ob	C.Y.	A 20	75 215 215	5. St.	à a	δ <del>2</del>	07 135	6 A	5 E	5 G	y da	À 4	67 135	70 40	ŝ

```
1996 CGTGTTTGATCAAAGAAGAAGTATAATTGTATATATTGTATTGTATAACTCGGTGTTC 2055
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2236 ACACCAACAAAATGACTCCAAGATCAAGAATCTTIAGTALCAATTGGTGGAYYATTCGGC 2295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2356 AGANGTGTTGAAGGAAGCAAGGTCTCTGAAAGGACTGGAAAAAAGTAGGTTTGATAGAA 2415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1816 IGGACCCITITCCAGCACACCCGCAGCAGAATGAGIAIGAACTCATGAGAGACAGGCATITG 1875
                                                                                                                                                             741 ArgValLeulleLysGluGluGluTyrAspSerllelleValPhelyrAsnSerValPhe 760
                             701 ASPGIBLICMETMETCYSSETMETTYTGLYLLCCYSLYSVALLYSASBLICASPLEBLYS 720
                                                                                                721 PheLysileileValThrAlaTyrLysAspLeuFroHisAlaValGluGluThrEheLys 740
                                                                                                                                                                                                                                761 MetGlnArgLeuLysThrAsnlleLeuGlnTyrAlaSerThrArgProProThrLeuSer 780
                                                                                                                                                                                                                                                                                                                                                                                                                                    821 ThrProThrLysMetThrProArgSerArg11eLeuValSer11eG1yG1uSerPheG1y 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     881 GlySerAspGluAlaAspGlySerLysHisLeuProGlyCluSerLysPheClnClnLys 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    861 ArgSerAlaGluGlySerAsnProProLysProLentysLysLeuArgPheAspl1cGlu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901 LeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hu, Shi-Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2536 GATACCTCAAACAAGGAAGAAAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       921 AspThrSerAsnLysCluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 34, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Z1P: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No. USZUUZUI51461A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                             q
                                                                                                                            qq
                                                                                                                                                             ^{\circ}
                                                                                                                                                                                               qq
                                                                                                                                                                                                                                Óγ
                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                  ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                              ó
```

```
198 PheLeuLeuAlaLysSlyGluValLeuGlnMetGluAspAspLcuValIleSerPheGln 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              238 ProfyrtyschtrataValilebroileasnolySerProArgibrotagargGlyGln 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98 [cuTrpGlyflcCysilePheileAlaAlaValAspLeuGlyAspMetSerPheThrPhe 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          118 ThrGluf.cuGInfysAsn11eGlu11e3crVa1HistysPhePheAsnLcuf.cuf.ysGlu 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11eAspThrSerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspVal 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    130 ALTGATACCACTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTTA 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         158 LeuPheAlaLeuPheSerlysLeuGluArgThrCysGluLeuIleTyrLeuThrGlnPro 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              190 IIGIIIGCACTCTICAGCAAATIGGAAAGGACATGIGAACTCATAFATITGACACAACC 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   218 LoaMetLouGysValleuAspTyrPhelleLysLeuSerProProMetLouLouTysClu 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFIWARE: Patentin Poloaso #1 0. Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-026-459A-51 (1-928) x US U9-469 522-34 (1-3266)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches:
                                 APPLICATION NUMBER: US/09/469.522
FILING DATE: 22-Dec-1999
CLASSIFICATION - MINNOWES
                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: UTXC:506
IELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Peagt h.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID NO. 34.
                                                                                                            APPLICATION NUMBER, 09/026.459
                                                                                                                                                                  NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                               FELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                    LENGIH: 3266 base pairs
                                                                                                                               FILING DATE: <Unknown>
                                                                                                                                                   ATTOPNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                               TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                       TYPE, nucleic acid
STRANDEDNESS: single
                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 34:
                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                    7..2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4263.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.88%
99.76%
88.85%
                                                                                                                                                                                                                                                                                                                                                                               IOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                              FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469 522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unery Match.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                α:
~.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
```

```
970 AGAGTGAAGGATATAGGATAGATGTTTTAAAGAGAAATTTGGTAAAGGTGGGGAGAGGGT 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1090 GAATOCATGCTTAAATCAGAAGAAGAAGATTATCCATTCAAAATTTTAGCAAACTTCTG 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1150 AATGACAACATTTTTCATATGTCTTTATTGGCGTGCGCTCTTGAGGTTGTAAIGGCCACA 1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  270 CTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATGGAAAGTTTTATCAAA 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1390 ATGGAATOTOTTGGATGGCTCTCAGATTCACOTTTATTTGATCTTALTAAGAATCAAAG 1449
                                                                                                                                                                                                                                                    438 CysValGluIlcGlySerGlnArgTyrLysLcuGlyValArgLeuTyrTyrArqValMet 457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      458 GluSerMetLeuLysSerGluGluGluGluArgLeuSerlleGlnAsnPheSerLysLeuLou 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                618 SerThrThrArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGln 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       638 ThrClnLysProLeaLysScrThrScrLeuScrLeuFhcTyrLysLysValTyrArgl.eu 657
950 TGTAAAGAAFATGAATGTAATATAGATGAGGTGAAAAATGIITAIIICAAAAATIIIAIA 609
                                                                                                      298 Problems AsaSorte stytemalThrsorAsadtytembrothvaldtaAsaten 217
                                                                                                                                                                                                                                                                                                                              338 AspHisAspLysThrLeuGlnThrAspSerileAspSerPheGluThrGlnArqThrPro 357
                                                                                                                                                                                                                                                                                                                                                           850 GITATGAACACTANCOARGAATTAATGATTTTAAATTCAGCAAGTGATGAACTTCA 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   418 ArgValLysAspileGlyTyrilePhcLysGluLysFheAlaLysAlaValGlyGlnGly 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               518 LeuasnvalLeuasnieuLysalaPheaspPheTyriysValIIcCluSerPheileiys 537
                                                                                                                                                               610 OPTITTATGAATTGTGTTGGAGTTGTAAGALGTAALGGAGTTGGAGGTTGAAAATGTT 669
                                                                                                                                                                                                                                                                                                                                                                                                                                       358 ArqLysSerAsnLeuAspGluGluValAsnVallleProProHisThrProValArqThr 377
                                                                                                                                                                                                                  318 SerLysArgTyrGluGluIleTyrLeuLysAsnLysAspLeuAspAlaArgLeuPheLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    378 ValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnSerAlaSerAspGlnProSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       398 GluAsnLeulleSerTyrPheAsnAsnCysThrValAsnProLysCluSerlleLeulys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          910 GAAAATTTGATITGGTATTTTAACAACTGTAATGGAATGCAAAAGAAAGTATACTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            478 AsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      498 TyrserArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrpIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        538 AlaGluGlyAsnLeuThrArgGluMetIleLysHisLeuGluArgCysGluHisArgIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 558 MetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGluSerLyG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               598 AsnAsnHisThrAlaAlaAspMetTyrLeuSerFroValArgSerFroLysLysLysGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           يَ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                문
                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               òγ
```

```
1750 FATATGAFGTGGASGCTTTTGGAGGACGCTGGAGAATGAGTATGAGTGATGAGAGAG 1809
                                                                                                                                                                                                                                                                                                                                                                       2050 ACCHIGICACGAALACCHCACATHCCICGAAGCCCTTACAAGTTTCCLAGHCACCTTA 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2110 CGGATTCCTGGAGGGAACATCTATATTTCACCCTGAAGAGTCCCATAAAATTTCAGAA 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Z 19.0 GATALLOAAGGALGAAGGAGAGAAGTAGAAGATCTGGGAGGAGAGTGCAAATTT 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2279 GTGCTCAAAAGAAGTGCTGAAGGAAGCAACCCTAAACCACTGAAAAAAACTGCCTTT 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2410 FARPAGAAAACIGGGAGAAATGACTTCTACTGGAAGAAGGAAAAGGAGAAAATGAAT 2469
                                                                                                                          738 Thr Phetys ArqValLeutletys GluGluGlufyr AspSerilette ValPhetyr Asp 757
                                                                                                                                                                                                                                                                                                                                                                                                                           758 SerValPheMetGlnArstantputysThrAsnileLeuGlnTyrAlaSerThrArgProPro 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   778 ThttenserProlleProllelleProArgSerProTyrtysPheProSerSerProLeu 797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         вів сіуіллиртотіл ProthitysMetThrProArqSerArgiTeLeuvalSerTTeGlyGlu_837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            848 SerPhedlyThrSerGluLysPhedlnLysIleAsnGlnMetValCysAsnSerAspArg 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    858 ValleutysArdSerAlaGluGlySerAsnProProLysProLeutysLysLeuArgPhe 877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #78 AspileshudiyserAspahalaAspalyseriysHisheuProdlyshuSeriysPhe 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   898 clinchnlysLeuAlaGluMetThrSerThrArqThrArqMetGlnLysGlnLysMetAsn 917
                                                      658 AlaTyrLeuArdLeuAsnThrLenCysGluArdLeuLeuSerGluHisProGluLeuGlu 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2470 GATAGCATGGATACTCAAACAAAGAAAAAA 2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           918 AspSerMetAspthrSerAsuLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Renedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3, Application 08/09469522
Patent No. 0820020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xu, Bong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     thou, Yundi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US 09 469 522 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PESHLI 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                        ŝ
                                                                                                                            5
                                                                                                                                                                 Ì
                                                                                                                                                                                                     5
                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                    Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
```

```
193 ValSerTrpIleThrPbeLeuLeuAlaLysGlyGluVulLeusluMertGluAcpAcpLeu 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       133 AsnLeuLeuLysGlufleAspThrSerThrIysValAspAsnAlaMetSerArdLeuLeu. 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              173 TyrLeuThrGlnProSerSerSerTl0SerThrGlu110AsnSerAlaL00ValL00Lys 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            247 GTTTCTTGGATCACATTTTATTAGCTAAAGSGGAAGTATTACAAATGGAAGATGATGTTTG +06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           233 Met Leuf Leuf Lys Gluprofyr Lys Thrala Vall Lebro Levand Lyses Brodunthia 252 Hiller Hill
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7. ATGLCGTTCACTTTTACTGACCTACAGAAACATAGAAATCAGACATAAATTCTTT 6.6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            113 MetSerPheThrPheThrGluLeuGlnLysAsn1leGlulleSerValHisLysPhePhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-026-459A-51 (1-928) x US-09-469-522 4 (1-4218)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Londt ha
                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 697026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sdry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown.>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGIH: 3218 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: < Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Hibler, David W.
REGISTRATION NUMBER: 4
STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4192.00
100.00*
                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87.178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: Linear
                                                                                                                                                                  ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cips
                                       CITY: Houston
                                                                                                                 COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME, / KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-469-522-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>a</u>
```

Aspthrarq 272 	NsnValT;r 292 	7.euPro 31          cricca 60	opteuAsp 33 [[]][[]] arcraGar 66	SerPheGlu 352 	eProProHis 372 	uAsnSerala 392 	LASEPFOLYS 412 	healarys 43	alArgLeu 45                 -rgggreg 10		AlaLeuGlu 492 	rAspLeu 51 	svalile 53           AGIGAIC 12	uGluAtg 55 1111111 AGAACGA 13	meAspLeu 57               TGATCTT 13	SProled 69          Trefort 14	13A14Ser 61 
eAlaLysGinLeudiuAsnł 	ASSILGASPGluVall;SASSV 	rt.cuGlyt.cuValfhrScrAsnGlyt.tttl	IleTyrLeuLysAcnLysAs 	.nThrAspSerI]eAsp 	uGluValAsnValll 	det.Met.IleLe 	PheAsnAscCysThrVall 	rilcPhelysGlatys 	GlaArqTyrLyoLeuGlyVa 		Leuleua)aCys 	LeuAspserGly 	FheAspFheTyr                 TIGAIITITAC	Metileiyshis 	Jeuseraspserproteuph TELLITITITITITITI TCTCAGATTCACCTTTATT	LenglaserA]                TTGAATCTGC	Tyrleas              ATCITI
SnArgSerAlaArgII 	;olyssiamissiacys 	heMctAsnSt 	C.;;sArqT;rG] 	pLysThrLeu                TAAAACTCTI	rAsnicuAs HILLHELL TAACTITG	nThrI]          CACTAI	uileseriyr 	r 3V3   13SASP   1CC   5T5 	ulledlyser 	atGluSerMetLeuLysSerG 	Aspasn I J I I I I I I I I I I GACAACA]	SerArgSe TITITI AGCAGAAQ	uAssvalle                   GAATGTGC	401.4019A8 11111111 AGAAGGCAA	ietgluserLeuAlaTrpl 	<pre>apArqqluqlyBroThr HITTHHHHH ACCANAAAGACAACTA</pre>	snaspHisTbralgalaA 
ProAraAraGlyGlaA 	Ilestavalle 	PhelysAsnPhelleP 	$\Psi = \Xi$	AlaArqLeaPheLeuAspertion	Lt.G.FhArgThrProArgLysSc   Lt.F.F.F.F.F.F.F.F.F.F.F.F.F.F.F.F.F.F.F	ThrProValArgThrV 	SerAspelapreserd 	Glusor HeleniysaryV HHHHHHHHHH GAAAGTATACTGAAAAGAG	731557 16111 40 <b>A</b> 047	TYTATAVALME 	PhesertysteufeuAsn 	- A - Δ	SerPheProIrpileL 	=======================================	Systimmisargilem FillHillH EstGAGGALGAALGA	T. F. S. A.	AsuteuProLeuGlnae 
427	487	243	41.4	3.3.3 5.6.3.3	151	171	847	413	434	453	47 (	~ ~	~ .	1267	er n	× h	593

```
(111111) | HILLI | HIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1927 ATAGTATTOTATAACTOGGTOTTOATGOAGAGTGAAAACAAATATITTGOAGTATATOT 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2287 AAAAAACIACGCIIIGAIAIIGAAGGALCAGAIGAAGCAGGAGAAGGAAGIAAACALCECA, 2346
                                                                                                                                                                                                                                            1567 ANTICARTITITATANTEAGAAANISAAALIIAAAALIITOOTIIOATITITATAAA 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1807 AAAGTGAAGAATATAGACCTTAAATTGAAAA1CATTGLAACAGCATACAAGGATGTICCI 1866
                                                                                                                                                         633 ThrSetAlaPheGInthrCIntySPT0LeutySSetThrSetLeuSetTleuthctyrtys 552
613 ProLysLysLysGlySerThrThrArqValAsnSerThrAlaAsnAlaGluThrGluAla 632
                                                                                                                                                                                                                                                                                                                                653 LysValTyrArgleuAlaTyrLeuArgleuAsnThrl.cuCysCluArgl.cuCercle 672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             673 HisProGluLeuGluHisIleIleTrpThrLeuPheGluHisThrLeuGlnAsnGluTyr 692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      753 HeValFheTyrAsnSerValFheMetGluAtgizeniysFhrAsnileizeuGlufyrAta 772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  693 GluLeuMetArgAspArgHisLouAspClnIleMetMctGysScrMctTyrGlyIleCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              713 1.ysVa1LysAsniloAspl.culysPhotysIlcIleValThrAlatyrLysAspl.culro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         773 SerThrArgProProThrLeuSerProlleProHislleProArgSerProTyrLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      793 ProSerSerProLewArgileProSlySlyAsmileTyrileSerProLewLysSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2407 AAGCAGAAAA'GAATGATAGCATGGATACCTCAAACAAGGAAGGAAA 2454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               913 LysGlnLysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Xu, H.mg-Ji
Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IIS-09-459-44
.; Sequence 44, Application US/09469522
.; Parent No Fig20020151461A1
.; Parent No PREMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     υþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      òλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
```

```
81 ValSerSerValAspGlyValLeuGlyGlytyrTleGlntysLysLysGlyLeuTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101 HeedystlePhetleAlaAlaValAspLeuGlyAspMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 CysGluLysLeuLysTleProAspHisValArqGluArqAlaTrpLeuThrTrpGluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21 ProA. aProProProProProProProGluGluAspProGluGliAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41 AspironProtenValArgiouGluPheGluGluThrGluGluProAspheThrAlateu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MetProproLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
1111.E OF INVENTION: MODIFIED RELINGBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                SOFTWAKE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US 09 026 459A 51 (1 928) x 0S-09-469-522-44 (1-3161)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRALION NUMBER: 41,071
REFERENCE/DOCKEL NUMBER: UIXC:506
FELEO-AMUNICATION INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches:
                                                                                ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels:
                                                                                                                                                                                                                                                        COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC DOSZMS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE DESCRIPTION: SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DAIR: 22-Dec 1999
CLASSIFICALION: - URKBOWD>
                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
                      PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: 512/418-3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGIH: 3161 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                  · Onknown ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Hiblor, David W.
                                                                                                      STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INPORMALLON FOR SECTIONO: 44:
SECUENCE CHARACLERISITYS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
                                          NUMBER OF SECUENCES - 71
                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4068.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          85.88%
85.88%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84.808
                                                                                                                                                                     COUNTRY: 3SA
ZIP: 77219:4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                        CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity:
                                                                                                                                                 SIAIRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US 119 469 522 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHERY Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
```

```
141 SerfhriysValAspAsnAlaMetSerArgiculeulysiysIyrAspValLeuPheAla 160
                                                                                                                                                                                                  161 LeuPheSerLysLeuGluArqThrCysGluLeuIleTyTLeuThrGluProSerSerSer 180
                                                                                                                                                                                                                                                                                                                                                              201 AlalysGiyGluValLeuGlnMetGluAspAspLeuVallleSerPheGlnLeuMetLeu 220
                                                                                                                                                                                                                                                                                                                                                                                                                                           221 CysValleuAspTyrPhelletysLeuSerProFroMetLeubeudysGluftoffyrLys 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               754 ACTATCCANJAATIAAIGAIGA1111AAA1ICA8GAAGIGATCAAGGTTGAGAAATGTG 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421 AspiledlyTyrilePheLysGlatysFheAlaLysAlaValslyGlaslyCysValGlu 440
                                       121 GlobysAsnileGlufleSerValHisLysFhePheAsniz-ub-uLysGlufleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                261 AlaArqileAlaLysGinLenGluAsbAspibrArqileTleCluVaficen'ystysdlu 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              394. GCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAAAA. 453.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      281 HisGluCysAsbileAspGluValLysAsnValTyrPhcLysAsnPhc11eProPheMet 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     574 TACGAAGAAATITAICITAAAAATAAAGATCIAGAAGAALGAAGAALAHHHGGAALGAT 633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     381 ThrileGinGinLeuMetileLeuAsnSerAlaSerAspGinProSerGluAsnLeu 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    874 GATATAGGATACATCTTTAAAGAGAAAATTTGCTAAAGGTGTGGGACAGGGTTGTGGAA 933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            441 IleGiySerGinArg1yrLysLeuGiyValArqLeulyrIyrArqValMerGluSerMer 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  934 ATTGGATCACGGATACAAACTTGGAGTTCGCTTGTATTACCGAGTAATGGAATCCATG 993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         461 LeuLysSerGluGluGluArqLeuSerIleGlnAsnPheSerLysLeuLeuAsnAspAsn 480
                                                                                                                                                                                                                                                                                  181 IleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThrPheLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 AsnLeuAspGluGluValAsnVallleProProHisThrProValArqThrVdlMetAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 ThrAlaValIleProIleAsnGlySerProArqThrFroArqArqGlyGluAsuArqSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341 LysThrLeuGlnThrAspSerIleAspSerPheGluThrGlnArqThrProArqLysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           307 ATCTGTATCTTTATTGCAGTAGTTGAGGTA--
                                                                                                                                                               336 ----
                                                                                                                                                                                                                                            336 ...
                                            ŝ
                                                                               셤
                                                                                                                         ŝ
                                                                                                                                                           9
                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                          <u>a</u>
                                                                                                                                                                                                                                                                                  ć
                                                                                                                                                                                                                                                                                                                      <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <del>Q</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>2</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
```

500 1113 520 ° 1173 540 1233 560	293 353 100 100 173 173	640 660 1593 680 1653 700	20 773 833 80 893 30	00 013 20 073 40
AITTICAIANCESELCULCUANAGCYSALALCUGIUVAIVAIMETALATHTIYTSCEAFG 5 AITTITCAIAIGILIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	HITTITITITITITITITITITITITITITITITITITI	Argvalasnserthralaasnaladluthrdinalathrseralaphedinthrdinlys  [1] [1] [1] [1] [1] [1] [1] [1] [1] [1]	AspointlementMetcysSerMetrycolyIlocysLysValLysAspileAspLouLyc 7	TEOLOPION HISTORIA GENERALI DE PROPERCIA DE PROLEGUAR EL PEROLOGUAR EL LE LELLE LE LE LE LE LE LE LE LE LE
481 1114 1117 1117 1117 1117	1234 1244 1244 1354 1354 14:4:	1474 641 1534 661 1594 1654	1714 1714 1714 1818 1818 1848 1848	781 1954 801 2014 822 2074
				9 8 9 8 5 8

## confore version 5.1.3 $^{\circ}$ copyright (c) 1993 - 2003 Compugen Ltd.

nucleic search, using sw model M micheje January 16, 2003, 15:20:22 ; Scarch time 97:0922 Seconds (without alignments) 16:120.731 Million cell updates/sec ит оп:

US 014 026 454A 50

4554 Perfect Score:

1 COPOLIZATOCOCOCCAAAAC.....AAATGAGAGTTALIGATAGT 3554

Sections

Gapop 10.0 / Gapext 1.0 IDENTITY NO. Scoring table:

total number of hits satisfying chosen parameters:

494868 seqs, 222934149 residues

Maximum DB seq length; Zügöregigge Minimum DB seq length: 0

Maximum Match 100% Post processing: Minimum Match 0%

Listing first 45 summaries Latabase :

Published Applications\_NA:\*

/cqn2\_6/piodata/l/pubpna/US07\_PUHCGMB.seq:\*/cqn2\_6/piodata/l/pubpna/PCT\_NEW.PUB.seq:\*

// County\_E/pto odata\_d/T/publina\_tisson\_NFW\_ports\_seq++
// County\_E/pto odata\_d/T/publina\_tisson\_EitHe\_wifts\_seq++
// County\_E/pto odata\_d/T/publina\_tisson\_EitHe\_wifts\_seq++
// County\_E/pto odata\_d/T/publina\_tisson\_Wifts\_seq++
// County\_E/pto odata\_d/T/publina\_tisson\_Wifts\_seq++
// County\_E/pto odata\_d/T/publina\_tisson\_Wifts\_seq++
// County\_E/pto odata\_d/T/probpoin\_tisson\_Wifts\_seq++
// County\_E/pto odata\_d/T/pto odat

/vinz 6/jv-dva/7/johpan USTO NEW\_FOR Seq.\* /can2\_6/prodata/1/pubpna/USTO\_PURCOMM seq:\* Porns Aprildita/Izpubpajans09\_P0Bcrans.cog:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

/cqn2\_6/ptodata/l/pubpha/USbU\_NEW PUB.scq:\* /cqn2\_6/ptodata/l/pubpha/US60\_PUBCOMB.seq:\*

## SUMMARIES

Kersault N	Score		Query Match Length [58 ] [D	1:13	JI.	Description
-	15.54	100.0	1554	=	08-08-469-522-50	Sequence 50, Appl
~	4550 B	6.66	45,55	-	US-09-469-522 1	Sequence 1, Appii
~	4549.B	6.66	48 1.3	2	US-09-954:541 144	Sequence 143, App
₹7	144 1 H	9.6.9	1455	Ξ	86-66-444-50-58	Sequence 28, April
, ·	4479.H	1.66	7644	0.1	US-09-469-522-40	Sequence 30, Appl
ç	4451.6	194.	346.1	_	US-09-469-522-40	Sequence 40, Appl
į.	4.11.8	5. 1.	1171	5	25 - 222 - 464 - 453	Sequence 32, App.
æ	3.5 4.E	9.16	3266	0	US-09-169-522 34	 +
<u>.</u>	3.222.8	6.11	* 77.4	C:	US-09-469-522-48	Sequence 38, App.
10	4212	90.4	# [ ] ;	<u> </u>	83-09-469-675-3	Sequence 3, Appli
	41.42.4	¥.	1181	Ξ	US 09-469-522-48	Sequence 48, Appl
7	\$180.4	8.5	1177	_	US-09-469-522-46	Sequence 46, Appl
-	31.26.B	8H.0	1147	10	US-09-469-522-42	Sequence 42, Appl
₹.	4107	¥ / 8	3113	2	US 09:469 522 36	Sequence 36, Appl
5.1	2.85H2	¥.08	5667	9	US-09-860-211-7	Sequence 7, Appli
16	4.72H2	7.9.6	1161	10	US 09-469-522-44	Sequence 44, Appl
1.7	4.2.H	1.2.0	451	÷	US-09-796-692 7740	Sequence 7740, Ap
18	142.2	4.0	4-1-1	10	US-09-864-761-4141	Sequence 3131, Ap
<u>.                                    </u>	1.29	4.4	671	10	US-09-864-761-19910	Sequence 19910, A

LENGIE: 3554 base pairs

TYPE: nucleic acid

Sequence 296, Appl.	Sespection et 2546, Apr	Sequence 1, Appli	Sequence 2, Appli	Sequence 1, Appli	Sequence 2, Appli	Sequence 4, Appli	Sequence 442, App	Sequence 141, App	Sequence 4, Appli	Sequence 11218, A	Sequence 14521, A	Sequence 4582, Ap	Sequence 154, App	Sequence 5558, Ap	Sequence 11244, A	Sequence 5785, Ap	Sequence 1, Appl)	Sequence 12358, A	Section 2769, Apr	Sequence 4147, Ap		Separate 249, App.		Sequence 4, Applii
10 US 09 964 B24A 296 9 US-09 292 758+37	9 03 09 396 692 2546		75 08 10 055 676 2	10 US-09 790-988 1	9 US-09-754-854A-2	9 US-09-754-854A-3	10 US-09-969 373 342	10 US 09-969-373-343	9 US-09-754 R54A 4	10 US-09 960 452 11218	10 US-09 960 352-14521	10 08-09-960 352-4582	Z) 8 Z 96	US 03 460 452	10 US-09-960 352 11234	778 096	10 US:09 790 988 1	10 08 09 864 761 12458	9 DS 09 938 841A 2769	9 US-09-938 842A-4147	9 02 09 938 842A 4050	10 08 09 070 927A 749	9 US-09 938 842A 5166	10 85 09 220 891 4
304 3960	4.2.4 4.1.4	3747	3747	640681	135913	335913	419	419	513509	424	411	£6.	302250	431	419	516	640681	555	2005	2000	0007	1:136	2000	3209
2.5	1.7	7.4		7	1.4	٧.	1.4	1.4	1.4	<u>.</u> :	£,	· .	Ŧ.	۲.	1.3					÷.	^1 -•	C:	1.2	C1 
104	59.4	51	- t	49.4	48.8	48.8	48.4	48.4	48.4	47.8	47.6	47	46.2	45.8	45.6	45.4	45.2	44.6	44.6	44.6	44.4	44.5	44.2	44.2
20	24 :	5.7	₱7	c 25	26	27	c 28	C 29	30	c 3]	c 32	33	C 34	35	36	3.7	88	5¥ D	<b>्र</b>	4 1	C 45	c 43	4.4	45

## ALIGNMENTS

```
APPLICANT, Xu, Hong-Ji
Hu, Shi-Xue
Hu, Shi-Xue
Benedict, William F.
Ebony Yunli
THIRE OF INVENTION, MALLIEE ELITHOGRAFI MA TOMOR SHIFMESCOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFIWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION BATA:

CURRENT APPLICATION NUMBER: 05/95/469,522

FILING DATE: 22-Dec-1969

CLASSIFICATION: cUrknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFIRENCE/DOCKET NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC DOS/MS:DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA: 09/626,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                  US-09-469-522-50
7 Sequence 50, Application 05/99469522
7 Fatent No. US20020151461A1
9 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                             PROTETUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY, AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILLING DATE: <Unknown.
                                                                                                                                                                                                                                                                                                                                        STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 50;
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                    CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                              STATE: IX
RESULT 1
```

Ö

```
241 GAGAAAGTTICATCIGTGGATGGAGTAITGGGAGGTTAIATTCAAAAGAAAAAGGAACTG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (0) IGGGGAATCIGTATCTTTATTGCAGCAGTTGACCTAGGTGATATGTCGTTCACTTTTACT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481 ITTGCACTCTTCAGCAAATTGGAAAGGACAIGTGAACTTAIAIAITTGACAACAACCAGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481 FITGCACTCTTCAGCAAATTGGAAAAAGGACATGTGAACTTATATATTTGACACACCCAGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541 AGITGGALAICTACHGAAATAAAFTCTGGATTGGFGCFAAAAGTTFGTTGGAFTGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541 AGTICGATATCIACIGAAATAAATTCIGCATTGGIGCIAAAAGTITCIIGGAICACAIIT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 NOGAGGANTEGOTETOGENAGGETTGAGGTTTGAAGAAGAGAGAAGAAGAACTTGAGT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4-1 - PAGGI AGAGAAAAQATAGAATCAGTGTGCATAAATTTCTTTAACTTACTAAAAGAAATT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41 GAGCTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAAATT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421 GATAGGAGTAGCAAAAGTTGATAATGCTATGTCAAGACTTGAAGAAGTATGATGTATTG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         42] JATACCAGTAPPAAGTTGALAATGETATGTGAAGAAFTGTTGAAGAAGTATGATGTATTG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661 AFBUTATGEGEGEGETATTTATTAAAACTCTCACCTCCCAFGTTGCTCAAAGAAGCA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841 AGGAGTGCACGGATAGCAAAACAACTAGAAATGATACAAGAATTATTGAAGTTCTCTGT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 78.1 AGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTGTF 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7.1. LALAAAACAGCIGITALACCCATTAAFGGTTCACCTCGAACACCCAGGCGAGGTCAGAAC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            981 ILLAIGAAFICTCTTGGACTFGTAAGATGTAATGGAGAGGTTGAAAATCTTTCT 960
                                                                                                                                                                              0, Gaps
                                                                                                                                                                                                               841 AAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATAGCT
                                                                                                                                                                                                                                    DB 10; Length 3554;
                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                        Nest Local Similarity 100.0%; Fred. No. 0; Matches 4554; Conservative 0; Misservative
                                                                                   SHOURINGE DESCRIPTION: SEQ 10 NO: 50:
SIKANDEDNESS: single
                                                                    7..2790
                 OPOLOGY: linear
                                                   NAME/KEY: CDS
                                                                    LOCATION:
                                                                                                      US-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ē
                                                                                                                                                                                                                                                                                                                                                                                            ä
                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \dot{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      쿱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
```

```
961 AAACGATACGAAAAATITATCITAAAAATAAAGATCTAGATGCAAGAITATTITIGGAT 1020
                                                                                                                                                          1021 CATGATAAAACTCTTCAGACIGATTCTATAGACAGTTTTGAAACACAGAGAACACCACGA 1080
                                                                                                                                                                                    1081 AAAACHAACCHIGAEGAAGAGAGAGEAAFTECHCCACACACCCAGTTAGGACTGTT 1140
                                                                                                                                                                                                                                                                    1921 CAGANG CATTGAAATCIACTICITITITITITITATAAAAACGIAFGIAACGIAGGC 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381 TCCATGCTTAAATCAGAAGAAGAATTATCCATTCAAAATTTTAGCAAACTTCTGAAT 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1681 GAATCCCTTGCATGCTCTCAGATTCACCTTTATTTGATCTTATTAACAATCAAAGGAC 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1261 GTGAAGGATATAGGATACATGTTTAAAGAGAATTTGCTAAAGGTGTGGGACAGGGTTGT 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1621 GAAGGCAACTITGACAAGAGAAATGATAAAAGATITTAGAAGGATGTGAAGAATCATG 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1621 GAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACATGGAATTCATG 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1741 CGAGAAGGACGAACTGATCACCTTGAATCTGCTTGTCCTCTTAATCTTCCTCTCTCGAGAAF 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1921 CAGAAGCCATTGAAATCTACCTCTTTTCACTGTTTTATAAAAAGTGTATCGGCTAGCC 1980
1141 ATGAAGAGIATGGAAGAATIAAFGATGATTAAAATTGAGGAAGTGAIGAAGGTTGAGAA
                                                                                                                                                                                                                                                                                                                                                                   1201 AATOTGATTTOOTATTTAAGAGIGCAGAGGAATCCAAAAGAAAGTATAGICAAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381 TCCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGCAAACTTCTGAAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1501 AGCAGAAGIACAICICAGAAICIIGAIICIGGAACAGAIIIGICITGICCAIGGAIIICIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1501 AGCAGAAGTACATCTCAGAATCTTGALLCTGGAACAGALLIGICTTTGGCATGGATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1321 GTCGAAATTGGATCACAGGGAIACAAACTTGGAGTTCGCTTGTATTACCGAGTAATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1441 GACAACATTTTTCATATGTCTTTATTGGCGTGCGCTCTTGAGGTTGTAATGGCCACATAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1561 ANTOTOCHTAATITTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTHTTATCAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1741 CGAGAAGGACCAACIGAICACCIIGAAIGIGCIIGIGCICTIAAICIICCICICCAGAAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1801 AATCACACTGCAGATATGTATGTTTCTCCTGTAAGATGTGCAAAGAAAAAGGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . qq
--.
                                                                    ò
                                                                                                                                                                                                    끉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οy
```

2040 2100 2100 2160 2160 2220 2220 2280	2340 2340 2400 2400 2460 2520 2520 2580 2580	2640 2640 2700, 2700 2760 2760 2780 2820 2820 2880	
TATCTCCGGCTAAATACACTTGTGAACGCCTTCTGTCTGGGCACCCGGGAATTAGAACAT  AUTHILLITITITITITITITICAGCACACCCGGGAATGACTAGGACTCCATGAGCACAGG  AUTHILLITITITITITITITITITITITITITITITITITI	281 ITOCARACTORANA CARACTATORANA CONTINUARION INTERNACIONE COCCURCO 234 281 GITTITATORANA CARACTATATORANA CONTINUARIA IL INTERNACIONE COCCURCO 234 281 GITTITATORANA CARACTARA CARACTATORANA CONTINUARIA IL INTERNACIONE COCCURCO 234 381 TIGICARDORANA CONTINUARIA IL INTERNACIONE COCCURCO 240 381 TIGICARDA ACCURATORA COCCURA CARACTARIA CONTINUARIA IL INTERNACIONE CARACTARIA CARACTARIA CARACTARIA CARACTARIA CONTINUARIA IL INTERNACIONE CARACTARIA CONTINUARIA CON	CTPAAAADAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	TTATEGECACATTAAATALETECACETETETIGIGGATATAAAATGEGCACAGTGCAATTTTTTTTTTTTTTTT
2041 2041 2041 2101 2101 2161 2161 2221	2281 2281 2341 2341 2401 2461 2461 2461 2521	25811 25811 2641 2701 2701 2761 2761 2761 2761 2761 2761	2881 2941 2941 (001 3001 3061
		5 8 5 8 5 8 5 8 5 8	5 8 5 8 5 8 5 8

```
14.20
                                                                                                  3241 ATCTTCCAAATGCAATTIGALIGACTGOOOATTOACCAAAATTAFOOTGAACTOTTOTGO 3300
                                                                                                                                                                                                                                    3301 AAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTAGACATTAGALTTTATT 3360
                                                                                                                                                                                                                                                                                                                                  4400
                                                                                                                                                                                                                                                                                                                                                                                              3480
                                                                                                                                                                                                                                                                                                                                                                                                                             3421 AAAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACTACTGAAACAGAATTTCATA 3480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3481 CCTCAGAATGTAAAAGAACTTACTGATTATTTTCTTCATCCAACTTATGTTTTTAAATGA 4540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3121 CCTGTCTGACTACTTTGCCTTCTTTTGTAGCATAIAGGTGATGTTTGCTTGTTTTAT 4180
                                                                            3181 TAATTTATATGTATTTTTTTAATTTAACATGAACACCTTAGAAAATGTGTGTATAT
                                                                                                                                                                            3361 TTACTATIGGAAICIGALATACIGIGIGCITGITITATAAAAITTIGOTTITAAAAT
                                                                                                                                                                                                                                                                                                                                                                                          3421 AAAAGCTGGAAGCAAAGTATAAGCATATGATACTATCATACTACTGAAACAGAFTTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IELECOMMUNICATION INFORMATION:
TFLEPAR: 512/418 +000
TELEFAR: 512/474 -577
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 1, Application US/99469522
; Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: < Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SHOUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 77210-4433
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shi - Xuc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3541 GGATTATTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3541 GGATTATTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 2
                                                                              ć
                                                                                                                                                          Š
                                                                                                                                                                                             d
                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                ć
                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ć
```

Tue Jan 21 10:04:46 2003

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GAACTOTTOGEACCCCCCCCCCCCCCCTCCTGAGGAGCCAGAGCAGGACAGGGC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 PROPORTION TO CONTRACT CONTRACTION OF THE SAME AND ACTION OF THE TRACT TROUBLE TRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 PREGRAMMENT GCCCCTCTCGCTCAGGCTTGAGTTTGAAGAACAGAAGCTGATTTTACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 SCATTATGTCAGAMATTAMAGATACCAGATCATGTCAGAGAGAGAGCTTGGTTAACTTGG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66. ATROTAPATOTOTOACTATITIAITAAACICICACCICCCAIGTIGGICAAAASAACCA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661 AIGGIAIGIGIGICGIIGACTAITITAITAAACTCTCAGGIGGGAIGIIGGIGAAAGAAGGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 3AGAAAGITICATCIGGGAGGAGIATIGGGAGGITATATICAAAAGAAAAAGGAACIG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (6) GAGCTACAGAAAAACATAGAAATCAGTGTCATAAATTCTTTAACTTACTAAAAGAAATT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421 HATACCAGTACCAATGATGATAGTGATGTCAAGACTGTTGAAGAAGTATGATGTATG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481 TITIGGACTCTTCAGCAAATTGGAAAGGACATGTGAAACTTATATATTTGACACAACCCAGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541 ATTICGALALCIACTOAAATAAATTOTOPATTGGTGCTAAAAGTTTGTTTGALATTT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fol TIATTAGGIAAAGGGGAAGIAIIACAAAIGGAAGAIGAICIGGIGAITICATITUAGTIA bbO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6. L. LIALLAGOLAAAGGGAAGTALTACAATGGAAGATGATGTGGTGATTTCALTTCAGTTA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72. FATAAAAGGGGTGTTATAAGGGTTGATGGTTGAAGAGGGGAGGGGAGG GAGAAG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781 ABBAGTOGAGGATAGGAAAAAAAACTAGAAAAIGAIAAGAAAITAIIGAAAGITCTCTGT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841 AAAGAACATGAATGTAATATATAGGGTGAAAAATGTTTATTTCAAAAATTTTATACCT 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1-0.000110 A 1.0000 1.0000 1.000 1.000 1.000 1.000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 AGC LACAGAAAACA LAGAAA ICAG LGCATAAATT POTTTAACT LACTAAAAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3-1 IGGGGAATUTGTATGTTATGGAGGAGTGACGTAGGTGATATGTGGTGGTTTTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481 TGGGGAATCTGTATTTTATTGGAGGTGAGGTAGATGTGGTGGAGATGTGAGTTGAGTTTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 10; Length 3555;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 3550.8;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                           SECUTION: SEQ ID NO: 1:
                                  LENGTH: 3555 base pairs
                                                                            IYPE: nucleic acid
SIRANDEDNESS: single
SECUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      186.65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.98;
                                                                                                                                                                                                                                                                                7..2790
                                                                                                                                                         ropoloGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 4552; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                LOCATION:
                                                                                                                                                                                                                                          NAME OFFY
                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                 US-09 469 522 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [voca]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \hat{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
```

```
1501_ACCACAAATATATATAAAATATAATAGAAAATTTATCTTTTCCATGGATTCG_1560_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021 CATGATAAAACTGTTGAGACTGATTGTATAGAGAGTFIIGAAAGAGAGAGAACACAGAGA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                           1321 GTCGAAATTGGATCACAGCGATACAAACTTGGAGTTCGCTTGTATTACCGAGTAATGGAA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1501 AGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTCCCATGGATTCTG 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081 AAAAGTAACCTTGATGAAGAGGTGAATGTAATTCCTCCACACACCTCCAGTTAGGACTGTT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1201 AATCTGATTPCCTATPTTAAGAACTGCACAGTGAATGGAAAGAAAGAAGTATACTGAAAAGA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1321 GTGGAAATTGATAGAAGGGAAAGTTGGAGTTGGGTTGTATTAGGAGAGAAGGAA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1561 AATGTGCTTAAATTTAAAAGGCTTTTGAATTTTACAAAGTGATCGAAGTTTTATGAAAGGA 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1561 AATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTATCAAAGCA 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1621 GAAGGCAACTTGACAAGAGAATGATAAAACATTTAGAACGATGTGAACATCGAATCATG 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1801 AATCACACTGCAGCAGCAGTATGTTTTTTCTCCTGTAAGATGTCCCAAAGAAAAAGGTTTA 1850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1801 ANYCACACYGCAGCAGATAYGYAYCTTTCTCCTGYAAGAICYCCAAAGAAAAAAGGIICA 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1861 ACMAGGGGGGGAAATTGTAGTGGAAATGGAGAGGAAGGGAAGGTCAGGGTTGGAGAGG 1920
841 AAAGAACATGAATGTAATATAGATGAGGTGAAAAATGITTATTTCAAAAATTTTATAGGT 900
                                          901 TETATGAATTGTGTTGGAGTTGTAACATGTAA!GGAGTTCCAGAGGTIGAAAAIGTILGI
                                                            1021 CATGATAAAACTGTTGAGACTGATTCTATAGAGAGTTTTGAAAGAGAGAAGAGGACGA
                                                                                                                                                                                                                                                                                                          1081 AAAAGTAAGGTTGATGAAGAGGTGAATGTAATTGGTGGAGAGAGGTTAGGAGTTAGGAGTGTT
                                                                                                                                                                                                                                                                                                                                                                                               1141 ATGAACACTATGCAACAATTAATGATGATTTAAALICAGGAAGTGATCAACCTLCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1681 GAATGGGTGGGALGGGTGTGAGGTTTATTTGATGTATAAAGAATGAAAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961 AAACGAIAGGAAGAAATITAICIIAAAAAIAAAAAICIAGAIGGAAGAITATTTIGGAI
                                                                                                                                                          1261 GTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAGCTGTGGGACAGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1741 GGAGAAGGAACAACTGALGAGGTTGAATGTGGTTGTGCGTGTTAATG14GG1G1FGAGAA1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381 TCCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGCAAACTTCTGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1681 GAATOCOTTGCATGGCTCTCAGATTCACCTTTATTTGALCTTAATTAAACAATCAAAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , оу
                                          ŏ
                                                                                    qq
                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                     Ω
                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                             đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ÓΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

Tue Jan 21 10:04:46 2003

								•									
2040	2100	2160	a 0	2280	2340	2400	2460 2460	2520 2520	2580	2640 2640	2700 2700	2760 2760	2820 2820	ന ന	2940 2940	3000	3060
TCCGGCTAAA3 HTTHHHHHH	:ATCTGGACCCTT	FORTHODAY CAAATTALGALGHOOLOGATATOGGATATOGAAAGTGAAGAATTATAGGATTATAGGAAAGTGAAGAAATTATAGGAAAATATAGGATGTATAGGAATATGGAAAATATAGAAGA	AAPAGATAGAAGGATG HILLIHHHHH AAGAGATAGAAGGATG	FOTTTGATCAAAGAAGAGGAGTATGATTG 	AGACTGAAAACAAABATTTC  - - - - - - - - - - - - - - - - - - -	LTEGPACCAATACCEGAAATECTEGAAGCETTAGAAGTTTCCTAGTTCACCETTACGG 	ATTCCTGGAGGGAACATCTATATTTCACCCTGAAGAGTCCATATAAAATTTCAGAAGGT 	CAACAAAA 	Postact ichgarabilischsananiaalistesianissian aspektistii iliitii iliiii iliiii iliiii iliiii iliiii iliiii iliiii iliiiii iliiii iliiiii iliiiii iliiiiii	AAGAAGTGCTGAAGG 	ATTGAAGGAFCAGAGGAAGAAGTGAAGTAAAGACACCAGCAGGAGTGCAAATTTCAG   FELLELLE FELLE FEL   ATTGAAGGAFCAGATGAAGGAGAGAGAAGTGCGCAAGGAGGAGAAATTECAG	I CAGAAACTOBONGAAATGACTTCTACTCGAACACGAATGCAAAAGCAAAAAGAATGAT 	AGCATOSATAPCTCAAACAABAAAAAAAAA GAGGATCTCAGGACTTTGGTGGACACTGT 	GIAPAPHELINING AND PROPERTORIGACIONA ACCUMONAGENCEST   CHITTELLINING THE FILLING THE FILLING THE FILLING THE FILLING THE FOLITICA ACCUMENT OF THE FORMATION ACCUMENT OF THE	I TTATOROGOATTITAATATOTICTICAGOTCITTITGIGGATATAAAATGIGGAGATGOATT 29. 	GITTGGGGAFTCTAABCTALIGAAALGITAGFCAFIGITAFFYALACAAGATGAAA 	ATCTTGTGTAAATCCGCATTAAAAAGTTGTAGCACATTGTTTCGT 
1987	2041	2101	J. J.	2221	2281	2341	2401	2461	7 7	258]	26.41	2701	276.	282] 282]	2881 2881	2'94	\$ 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5 3	5 È	5 E	5 3	5 3	5. 12. 13.	75 43 43	\$ £	57 121 121	5 3	ਨੇ ਤੋਂ ਤੋਂ	5 G	5 3	5 · 查	5 3	à a	3 3	46 25

```
APPLICANT: Weaver, Zoe
TITLE OF INVENTION: Process for Identifying Anti-Cancer Therapeutic Agents Using C-
TITLE OF INVENTION: Conc. Scis.
FILE REPRENCE: 689290-77
CURRENT APPLICATION NUMBER: US/09/954,531
CURRENT FILEND APPLICATION NUMBER: US/69/233,133
PRIOR FILING DATE: 2000-69-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
O
                                                                                                                                                   3240
                                                                                                                                                                                                                                                                                              3.46.0
                                                                                                                                                                                                                                                                                                                                                                                                                                            4480
                 34.20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3421 AAAAGCIGGAAGCAAAGIATAACCATAIGAIACIALGAIACIGAAAGAGAITICAIA 3480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3481 CCTCAGAATGTAAAAGAACTTACTGATTATTTTTCTTCAAACATTAAACTTTATAAATGA 3540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8061 AATIGCIGIGCITTAIGGAIAGIAAGAAIGGCCCIAGAGIGGGAGTCCTGAIAACCTAG 3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Indets 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 GOGICATIGGGGGCAAAAPPGGGGGAAAAAGGGPPGGCAPPGPGGCPPGCPGG-61
                                                                                                                                                                   3421 AAAAGCTGGAAGCAAAGTATAACCATATGATATGATACTATGTACTGAAACAGATTTCATA
                                                                        241 ATCTICCAAATGCAATTIGATIGACTGCCCATTCACAAAATTATCCTGAACTCTTGTGC
                                                                                                                                                                                                                                                                                                                                                                                    3181 TAATTTATATATTTTTTTTAATTTTAACAGGCTTTAGAAAAGGCCTATCT
                                                                                                                                                                                                                                        3301 AAAAATGGATATTAGTAGAAATTAGAAAAAAATTACTAATTTTACACATTTTACT
                                                                                                                                                                                                                                                                                                                                                                 3361 TTACTATTGGAATCTGATATACTGTGTTGTTTTATAAAALLLIGGTTLIAAFTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.9%; Score 4549.8; DB 9; Length 4849;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. u;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR PLLINE DATE: 2606-09-20
PRIOR APPLICATION NUMBER: US/60/234,034
PRIOR FILLING DATE: 2600-09-20
PRIOR APPLICATION NUMBER: US/60/234,509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US/60/234,009
PPIOP PILINS DATE: 2008-09-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 2000-09-22
PRIOR APPLICATION NUMBER: US/60/234,567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 143, Application US/09954531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  186,66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20000-04-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 3551; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3541 GGATTATTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3541 GGALTATTGALAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Patent No. US20020165180Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM; Homo sapiens
US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-954-531-144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEC ID NO 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                Q
C
                                                                                                                                                                                                                                                     a
C
                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                 <u>q</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                          ò
                                                                                                           qq
                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                          ôγ
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                ò
```

1921 1142 IGAACACIATCCAACAATIAAIGAITTIAAATICAGCAAGIGALAACCIIDAGAAA 1201 1273 IGAACACTATCCAAGAATTAATGATGATTTTAAATTGAGCAAGIGATCAACGTTGAGAA 1332 1393 TGAAGGATATAGGATATATTTAAAGAGAAATITGGTAAAGGTGGGGGAGACACCTGTG 1452 1382 PEATGETTAAATFAGAAGAAGAAGGALIALOOALICAAAATTTTAGCAAACTTGTGAATG 1441 1442 ACAACATTITCATATGICTTTATTGGCGIGCGCICIIGAGGTTGTAATGGCCACATATA 1501 1502 GCAGAAGTACATCTCGAGAATCTTGATTCTGGAACAGATTTGTCTTTCCCATGGALTCTGA 1561 1633 GCAGAAGTACATCTCAGAATCTIGAITCTGGAACAGAITIGICITTCCCAIGGAITCTGA 1692 1562 ATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAGGGGAAAGTTTTATGAAAGGG 1622 AAGGCAACTTGACAAGAGAAATGATAAAAGAGTGTAGAAGGATGTGAAGACATGGAATCATGG 1681 1742 GAGAAGGAAGGAACTGATCACCTGAATCTGCTGCTCTTAATCTTCCTCCCAGAATA 1801 1802 ATCACACTGCAGGAGATATGTATGTTTCTCCTGTAAGATCTCCAAAGAAAAAGGTTCAA 1861 1682 AATOOTHISCALIGICHETEAGATTEACHTTATHTIGATCHTATAAACAATCAAAGGACE 1741 1982 ATCTCCGGCIAAAIACACIIIGIGAACGCCIICIGIGIGAGCCCCAGAAIIAGAACAIA 2041 1202 ATCTGATITGCIATTITAACAAGTGCAAGTGAATCCAAAAGAAAGTATACTGAAAAGGG 1513 CCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGCAAACTTTGAATG 1453 TCGAAATTGGATCACAGCGATACAAACTTGGAGTTCGCTTGTATTACCGAGTAALGGAAT 1262 TGAAGGATATAGGATAGATAGATATATAAASASAAA111GGTAAAASGTGTGGGACAGGGTTGTG 1322 TCGAAATTIGGATGGGATACAAACTTGGAGTFCGCTTGTATTACCGAGTAATGGAAT 1813 AATGGTIGGATGGGGGGAGGAGGIIAIIGAIGIBATAAAAAAAAGGAGG 1693 ATCHGCTTAATTTAAAAGCCTTTGATTTTACAAAGTGALGGAAACTTTTATCAAAGCAC 1922 AGAAGCCATTGAAATGTACCTGTTTGAGTGTTTTATAAAAAAGTGTATGGGGTAGGCT 2113 AFCTOGRACIAAATAPACITIGIGAAOOGIICIGIGIGIGAACAAAATAAAAAAAAA 2173 TO A FORGA GOVERNMENT OF THE HELLER HER HELLER HELLER HELLER HELLER HELLER HELLER HELLER HELLER HELLER 2162 TIAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCTGTTCAGAGAGACAT 2053 AGAAGCAFFIGAAAFFJAGCTGTGTTFCACTGTTTTAAAAAAGTGTAFCGGGTAGCCT 2042 TEATETEGRACETTTTECAGGACACACACAGAAIGAGIAIGAACTCATGAGAACAGGC 2102 AITTGGACCAAATTAIGAIGTICCATGTAIGGCAIATGCAAAGTGAAGAATATAGAC 2293 ITAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCTGTTCAGGAGACAT á q â Š qq ò q ò Q ò q ò  $\overset{Q}{\cap}$ ò 77 ΩŽ 십 ŝ q ó ò q ŝ 9 ò g õ 3 ó ò â ें

÷	7 45 4	1	
0.7	2 H Z Z	POTTOR POPAGACIA DA ARABA DE LITIGORA DE LA CONTRO A COLOCO COCOCO DA COLO DE LA COLOCA DE COLOCA DECENDA DE COLOCA	
i.	2414	TOTICALGAGAGAGAAAAAAAAATITIGGGGGGGCCCAGGAGGGGGGGGGG	
5 3	2342	TOTO ACCANTACCT CACATTCCT CGAAGCCCTTACAAGTT FCCTAGTTCACCCTTACGGA 2401 	
à á	2402	THOUTGIANGGAACAICTATATTTCACCCTGAAGAGCCATATAAAATTTCAGAAGGTC 2461 HIIIIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	
75 E	2462	UY 2462 DOPAACAPAACAAAAADGACDCAAGADAAAGTIAGIAGAATIGGGGAATGAT 2521 DA 2593 DOPAACAPAACAAAAATGACTAGATAGAAAAGAAAAGAAAAG	
46 196	25,22	ENSISTANTECTRANAMENTECTRANAMANATAMATCARATIGETATRIAMENGARGREGIGIGG 2581 HELLITELETETETETETETETETETETETETETETETETE	
8 8	2582	PCANAGANGTGCTGANGGAAGCAACCCTCCTAAACCACTGAAAAAACTAGGCTTTGATA 2641 	
45 45	26.42	TEGARGAT CAGARCAAR CAGAGTAAACA LOOCAGGAGAGTOCAAA TITOAGG 2701 TITITITITITITITITITITITITITITITITITITI	
5 3	2702	AGAAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAGCAGAAAAATGAATG	
3 ±	289.1	PONTECONTACTORANCANOSANGANANTONGONTECTONGONCETECOTOGONCHEGGE 2821 OTHER PERMINDER FOR ANOTANGANANGANANTONGONGONGONTOGONGONCHEGGE 2952	
5 A	2822	TRANCICLOMATICATIOLCICICACAGAGATGIOACIGATAACITTCCCAGGTTCTGTT 2881 	
5 G	2882	TATGGCCACATTIAATATCTTCAGCTCTTTTTGTGGATATAAAATGTGCAGATGCAATTG 2941 FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	
ò 3	2942	TTTGGGTGATTCCTAAGCCACTGAAATGTTAGTCATTGTTATACAAGATGAAAA 3001 	
5 3	1002	PYTGIGIAAAICTGCAITTAAAAAGIIGFAGGAGATTGTTTGCTGTGTGCTAAA3061   PYTGIGIAAAICTGCATTAAAAAGIIGTAGCAGTTGCTGTTGCTGTTGAAAGTAAA 3192	
5 g	406.2 419.4	ATTGCTGTGCTTTATGGATAGTAAGAATGGCCCTAGAGTGGGAGTCCTGATAACCCGAGGC 3121 FEFFEETHELLELLELLELLELLELLELLELLELLELLELLELLELL	
5 3	1122	CTGTCTGACTACTTTGCCTTCTTTGTAGCALATGTGCGTGTGCGTCTTGTTTTTTT 3181 	
40	4182	AAFITAFAGIAJAHIHHHAAHHAACAIGAACACCCHAGAAAAIGIGICCCTATH FIFTHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	
5 £	1242	FCTFCCAAATGCAATTGATTGATTGCCCATTCACCAAAATTATGCGGAAGTCTTGTGGA 3301 HILLIHTHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	
5	1402	AAAATSSATATTATTASAAATTASAAAAAAAATTASTAATTTTASACATTASATTTTATTT 3361	

```
.,
=
                                     3422 AAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACTACTACTGAAACAGATTTCATAC 3481
                                                                                                                                             3433 AAAATGGATATTATTAGAAATTAGAAAAAAATTACTAATTTTACACATTTTATTT 3492
                                                                                                                                                                                                          3482 CTCAGAATGTAAAAGAACTTACTGATATTTCTTCATCAACTAAGTTTTTTAAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sdes to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hu, Shi-Xue
Benedict, William F.
Zhou, Yunil
TITLE OF INVENTION: MODIFIED RELINGHIASTOMA TUMOR SHERKESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match 96.9%; Score 444.8; DB 10; Length 4455; Best Local Similarity 99.9%; Pred. No. 0; Matches 3445; Conservative 0; Mismatches 2; Indeis 0; c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Hibler, David W. HEGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSE: Arnold, White & Durker STREET: P.O. Box 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER FRADABLE FORM:
MEDIUM LYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-FOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 7..2691
SEQUENCE DESCRIPTION: SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/026,459
FILING DATE: <Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                  . Sequence 28, Application 08/03463522
; Patent No. 0820020151461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ 1D NO: 28:
SEQUENCE CHARACTERISTICS:
LENGTH: 3455 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Bong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIF: 77210-4433
                                                                                                                                                                                                                                                                                                                 3673 GAPTATPICADAGE 3685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
                                                                                                                                                                                                                                                                                         3542 GATTATTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                             RESULT 4
                                         ŝ
                                                                                  2
                                                                                                                            ò
                                                                                                                                                               qq
                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                <u>:</u>
```

POSTCORGAGGACCIOCOCOCOCOGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGA	AACACCACGAAAACHAACCACCACCACCACCACCACCACCACCACCACC	106 968 112 102	100	AAATITIAIACCITTTATGAATICICITGGACTIGTAACAICTAAFGAATTCCAGAGGT 947  - - - - - - - - - - - - - - - - - - -	UGAAGITCTCTGTAAAGAACATGAATGTAATATACATGAGGTGAAAAPGTTTATTTCAA 887 1111-1111111111111111111111111111111	praagitraaankasaagisonksiatasraaankaatagaaantsainka 827 5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	SCIPAAAAAACCAIAIAAAAACAGCIGITAIACCAITAAIGGIICACCICGAACACCCAG 767 	FICALITICAGITAANGGINANGIGIOCOTIGACTAFITITANTAAACICICACCTCCCANGTT 707 	TGGATCAVATITTAATAGCTAAAGGGAAGTATACAAATGGAAGATGGATGG	BACACAAACCAGGAATTGAATGTACTGAAATAAATTGGGCATTGGTGGTAAAAGTTIC 587 	STATGARGIARIGIRRGACTCTTCAGCAAATIGGAAGCGCATCTGAACTTATATTT 527 FELLILLILLILLILLILLILLILLILLILLILLILLILLI	aciaaaagaaaiigaiaccagiaccaaagiigaiaaiggiaigicaagagagag	TCANTITIACTGABGTACAGAAAACATAGAAATCAGTGTCCATAAATTCITTAACTT 407 	GAAAAAGGACTGTGGGGAATCTGTATTGCAGCAGTTGACCTAGGTGATATGTC 347 FILLITITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	TGGITAAVITGGGAAAAATITCAICIGIGAAFGAAGFATTGGAAGFITAITAITATAAAA 287 111111111111111111111111111111111111	AGCTGATITIACIGNATIATOTORANAATTAARAATAANAAGATOATOTORANAARAANAAG 227 11116   1116   1111	SPAGGAMANNGGMMNAGGAGGMOMMINTEGMAGGGMTGAGTTTTGAGAAMAAGAAGA 167 FILLEFFELFELFELFELFELFELFELFELFELFELFELFEL
0-2 4-4 H-4 4-5 0-0 0-0 0-0 0-0 0-0 H-4 H-4 0-0 0-0 H-4 4-4 0-	969 GAGAAAACTAGGAAAAAGTHAAACTAGAAAGAAAAAAAAAA	a	T ~	~ ~		_		oo .*	н – н х	x: -	x .*	* .*	# 75 # 7	E F	Z = Z = Z = Z = Z = Z = Z = Z = Z = Z =	× >	-

```
1248 TATACTGAAAAGAGTGAAGGTATAGGATACATCITTAAAGAGAAATTGGLAAAAGGGTGT 1307
                                                                                                                                           1308 GGGACAGGGTTTGTTGTATTGGATGAGGGATACAAACTTGGAGTTCGCTTGTATTA 1367
                                                                                                                                                                 1209 GGGAGAGGTGTGTGTGTGTGAAATTSGATCAVAGCGALACAAAVITGGACTTGTTGTATA 1268
                                                                                                                                                                                                                                                                                                                                    1548 CCCATGGATTCTGAATCTGCFFAATTTAAAAGGCTTTGAFTTTTAGAAAGTGATGGAAAG 1607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1608 TITIATCAAACCAGAACCAACTIGACAAGAAAIGAIAAAACATITAGAACGAIGIGA 1667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1908 ACCCTTCCAGACCCACATTGAAATCTACCTCTCTTTCACTGTTTTAFAAAAAGI 1967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2109 TGTTCAGAGACATTCAAACGTGTTTTGATCAAAGAAGAGGAGAGTATGATTCTATTATAGT 2168
                                                                                                                                                                                                                              1368 CCGAGTAATGGAATCCATGCTTAAATCAGAAGAAGGAGTTATCCAFTCAAATFILAG 1427
                                                                                                                                                                                                                                                                       1269 PPGAGTAATGGAATECATGCTTAAATCAGAAGAAGAAGATTATGGATTGAAAATTTTAG 1328
                                                                                                                                                                                                                                                                                                                                                                                             1488 AATGGGGACATATAGCAGAAGTACATOTOGAATGTTGA FTGTGGAAGAGAGATTTGTGTTTT 1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1509 TTTTATCAAACCAAGGCAACTTGAGAGAGAAATGATAAAAGATTTAGAAGGALGTGA 1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1569 ACAIGGAAICAIGGAAICCTIGGAIGGCICIGAGAIICACCIIIAIIIGAICIIAIIAA 1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1728 ACAATGAAAGAAAGAAAGAAGAAAAAAAAAAAGAAGA KAAATGTGCTTGTTGCTTAATGT 1787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1749 GAAAAAAGTIFCAACIACGTGIAAAIICIACIGCAAAIGCAGAGACAAAAAAAACIG 1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1968 GIAIGGGGTAGGGTAIGTGGGGGTAAATAGAGIIIGIGAAGGGGTGGGGTGGGGAGGG 2027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2268 AFFCTATAACTCCCTCTTCATCAAACACACAAAAAAATATTTTCCACTATGCTTTTAT 2327
                                                                                                  1149 PAPAGTGAAAAGAGTGAAGGATATAGGATAGATGTTTAAAGAGAAATTGGTAAAGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1668 ACATOGAATOATGGAATOOTTTGGATGGCTCTCAGATTGAGTTTTATTTATTTGATGTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2148 GAAGAATATAGACCITAAAIICAAAAIGAITGIAAGAGGAIAGAAGGAIGIIGGIGAIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2049 GAAGAATATAGCTTAAATTCAAAATGATTGTAACAGGATAGAAGGATGTTGCTGATG
                                                                                                                                                                                                                                                                                                              221/8 TOTTEAGGAGAGATTEAAAGGTGTTTTTCATCAAAGAAGAGGAGTA1GATTGTATTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
```

```
1129 ATGTGTGCTATGTAGGTGCAAATGGAATTGAGTGGGGGGATTGAGAAATTATGG 3188`
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2469 CARREAN OUT FELLE HELLE H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2269 TCCCAGNITOPNITIATAPANCANTITAATAICTIORAGICITITITITITIAAAIAG 2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   *108 CTGALAACCGAGGCTGLCGACIACTIGGCTGTTTTTTTGTAGGATALAGGIGATGTTG 3167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      422M ATGTGTGTATGTATGTTGGAAATGGAATTGATTGACTGGGGATTGAGAAATTATGG 3287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3388 TOAACTOTTOTOCAAAAATGGATAFTATTATTAGAAAAAAAATTACTAATTTTAGAG 3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3248 TGAACTCTTCTGGAAAAATGGATATTAGAAATTAGAAAATTAGAAAAATTAGAAAATTTACAC 3248
2169 ATPTATANTCCCTOTION CARGEORAPAAAAAATATTTOCAGTATGCAG 2228
                                                                                                                 2229 CASOCOSTANOTECTOROSANACOTORANTOCTOCARAGOCOTANARATICOTAG 2288
                                                                                                                                                                                                                                                                                                                                                                                              2448 AATTIGAGAAGGICTGGGCAAGAAAAAAGAAAAGAGAGAICGAAGAIGITAGIAIG 2507
                                                                                                                                                                                                                                                                                                                                                                                                                               2688 GTCGAAATTTGAGGAGAAACTGGGAGAAATGACTTCTACTGGAAGACGGAATGGAAAAGCA 2747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2589 TTCCAAATTTCAGCAGAAACTGGCAGAAATGGCTTCTACTCGAACACGAATGCAAAAGCA 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2748 GAAAA IGAALGATAGGA LGGA LAGGTGAAAGAAGGAAGAAA IGAAGATGTGAGGAGGT 2807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2709 TOCHOGACACTERICACACCTERICATION CITCACACACATOROACTICATAACTT 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2868 TOCCAGGITOTGITIATGGCCACATTIAAIATGITCAGCTCTTTTGGGATATAAAATG 2527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2928 INMAGALOMAATIBITI DIMINI GARITOTI AAGGGACTI GAAATIGITAMI IGITATIITA 2987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2829 TGCASATGCAATTGTTTGGGTGATTCCTAAGCCACTTGAAATGTTAGTCATTGTTATTA 2888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2988 TACAAGATTGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCAGATTGTTGC 3047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4048 TOTTOCAAAGTAAAATTGCTGTTTTATGGATAGTAAGAATGGCCCTAGAGTGGGAGTC 3107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4009 CTGATAACCCAGGCCTGTCTGACTACTTTGCCTTTTGTAGCATATAGGTGATGTTTG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3168 CTCTTGTTTTATTAATTTATATGTATATTTTTTTTAATTTAACATGAAGACGCTTAGAAA 3227
                                                                           2328 (76GGGGGCTTTGGTGACTAATAGGTGACTTGGTGGAAGGGGTTAGAAGTTTGGTAG 2387
                                                                                                                                                                                                                                  2388 TTCACCTTTACCGAFTCTTGGGGGACGATATTFCACCCCTCAAGACFCCATATAA 2447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2568 CAGGGACCTICTOCTCAAAAGAACTCCTCAAAGGAAGGAAGCCACCCCTAAACACACTGAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                               5
                                                                                                                                                   Ξ
                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    È
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \bar{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \frac{2}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \hat{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
```

```
232 TFAACTTGGGAGAAGTTTGATGTGGATGGAGTATTGGGAGGTAJATATATAAAAGAAA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2) Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3408 CTTTTAATTAAATAAAAGTIGGAAGGAAAGTATAACGATAHGATACTATGATACTACTACTA
                 4468 AACAGATITICATACCICAGAATGIAAAAGAACITACIGALTALITICALCAACITA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: MODIFIED RETINOBLASIOMA FUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95.1%; Score 3479.8; DB 10; Length 4492;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred, No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/05/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: 1BM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GOCATION: 7.2628
SEQUENCE DESCRIPTION: SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 09/026,459
                                                                                                                                                             3528 TGTTTTAAATGAGGATTATTGATAGT 4554
                                                                                                                                                                                  REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                            Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                     Sequence 30, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 512/418-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGIH: 3392 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: * Unknown *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic arid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         186.66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                       Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                           Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 3381; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IRM PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 77210-4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF
                                                                                                                                                                                                                                                                RESULT 5
US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ें
                                                                                 Ś
                                                                                                                  <u>a</u>
                                                                                                                                                               Š
```

129	351 189	411	471 309	531 369	591	651 489	7111	771 609	831 669	891 729	951	1011 849	1071 909	1131 969	1191	1251 1089	1311	1371
: I - I I - I I - I I I I I I I I I I I	ANSTAACTATAAATCTATATCTTTATTACAACAATAAACTAAGTAATATGTGGTTC 	ACHTHACHGAGCHACAGAAAACAFAGAAATCAGTGTCCATAAATTCFFFFACTTACTA 	AAAGAAH I GATACCAGTACCAAAGTI GATAATGCTATGTCAAGACTGTTGAAGAAGTAT 	GATGTATTGTTTGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTTATATATTTGCA 	CAACCCAGCACTTCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGG	A L'ACATHTHA HAGCLAAAGGGGAAGTATTACAAATGGAAGATGTCTGGTGATTTCA - 11   11   11   11   11   11   11   11	TITCAGITAATGGTATGTGTCCTTGACTATTTATTAAGTCTCACCGCCCCATGTTGCTC FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	AAAGAACCATATAAAACACACHCHTITTATACCATTAATGCTTCACCTCGAACACCCAGGCGA 	GGTCAGAACAGGAGTGCACGGATAGCAAAACAACTAGAAATTGATACAAGAATTTATTGAA 	GTPCTCTGTAAAGAACATGAATGTAATATAGATGAGGGGAAAAATGTTATTTCAAAAAT 	UTATACCH HAIGAATTCTCTGGACTTGTAACALCTAATGGACTTCCAGAGGTTGAA ELLELELELEH HELLELEH HELLEH HELLEH HELLEH HELLEH HELLEH HELLE ETATAGACTTTATGAATGTCTGTGGAGTTGTAACATGTAATGGACTTCGAGAGTTGAA	AALCITICTAAAGGATAGGAAGTTTATCTTAAAAATAAAGTGTAGATGCAAGATTA FILLILLILLILLILLILLILLILLILLILLILLILLILL	ITTTGGATCATGAAAACTCTTCAGACTGATGTATAGACAGTTTTGAAACACAGAG 	APACAGAAAAAADHAACHTGA IGAAGATGAATIGTAATTCCTCCACACACTCCAGTT 	ADDACTO FLATGAACACTATCCAACAATTAATGATTTTTAAATTCAGCAAGTGATCAA TELETELETELETELETELETELETELETELETELETEL	CCTICAGAAAATCTGATTTCCTATTTTAACAACTGCACAGTGAATCCAAAAGAAAG	OTGAAAAGAGGAAGAATATAGGATACATOTTTAAAGAAAATTTGGTAAAGGYGYGGGA 	PAGGGTTGTGTGGAAATTGGATCACAGCGATACAAACTTGGAGTTCGCTTGTATTACCGA
r.	130	45.2 1340	41.4	47.0	5.42	5°3.2 4.30	652 430	550	272	8 4 2	24.8	7.56	2 2 2 2 2 2	1072 910	73.1	1192 1030	1252	1:12
1:1	රු දි	5 3	5 E	ŝ <u>€</u>	å å	5 =	á á	5 <del>4</del>	25 of 2	55 GE	5 8	5 2	5 £	5 £	by 4	\$ 6 2 5	\$ <u>8</u>	Æ)

1210 GTAATGGAATGGATGCATAAATGAGAAGAAGGATTATGCATTGAAAATTTTAGGAAA 1269 2230 CCCTTACGATTCCTGGAGGGAGGGATCTATATTTCACCCCTGAAGAGTCCATATAAAATT 2289 1270 CITCTGAATGACAATITITCALATGTCTITATIGGCGTGCCGTCTTGAGCTTGTAATG 1329 1150 CAGGGTTGTGGAAAITGGATCACAGGGAIACAAACTIGGAGTTGGGTTGTAIIACCGA 1209 1372 GTAATGGAATCCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGCAAA 1431 1432 CTTCTGAATGACAACATTTTTCATATGTCTTTATTGGCGTGCGCTCTTGAGGTTGTAATG 1491 1792 FIRMAGAAHAAHMAMAMAGAGAGAIAIGIAIGIIGIGGIGIAAGAIGIGGAAAAA 1851 1870 TTAGAAFATATFATFIGGAGPGTTTTFFAAAAAGGGTGFGGAGAATGAGTATGAAGTGAIG 1929 1930 AGAGACAGGATITGGACCAAAITAIGATGTGITCCATGTATGGCATAIGCAAAGTGAAA 1989 1990 AATATAGACCTTAAATTCAAAATCATTGTAACAAGATACAAGGATCTTECTGATGCTGTT 2049 2272 TATAACTCGGTCTTCATGCAGAGACTGAAAAAAAAATATTTGCAAGTATGCTTCCACCAGG 2331 2332 COCCUTACOTTGUÇAÇÇAATAÇÇTÇAÇAFTIÇTÇĞAAGCCCITACAAGTITGOTAGITÇA 2391 2170 CCCCCTACCTTGTCACAAAAACTCACATTCCTCGAAGCCCTTACAAGITTCCTAGTICA 2229 2392 CONTINUARATION FOR A BARANTE PARTITION OF GAAGAGACINCATAINAAATT 2451 1492 GPANARARAGAGAGAGAASIANATUTUGAGAATUTUTUGAAAGATTTUTUGAA 1732 TOAANGGAOGAAAAAAAAAOAAAACEBATOAOCTTGAATOTGCTTGTCTGTTAATCTTCCT 1972 FRANCIPARIOTRAPOROGONAAATACAATTIGIBAAGGGGTITGIIGIIGIIGIIGAGGAAGAAA 1810 GGGTANGCIAJOLOGGCTAAAAIACACIIIGIGAAGGCCIICIGIGIGIGAAGACAGAAA 2032 TTAGAACAIATCAIGISGACGIIIICGASCACACGGGAGAATGAGAGTAIGAGAGAGA 2092 AGAGACAGGCATTTGGACCAAATTATGATGTGTTCCATGTATGGCATATGCAAAGTGAAG 2152 AATATAGACCTTAAATTCAAAATCATTGTAACAGCATACAAGGATGTTCCTCATGCTGTT 2212 (NOSASACALICAMACSISTIISATCAMAGAAGAGAGIATGATTGITATAAGAATTC 1552 IGGATTOTGAAIGIGOTTAATTIAAAAGGOTTIGAITITTAGAAAGIGAIGGAAAGIITI 1390 TGGATICTGAATGTGCTTAATTTAAAAGCCTTTGATTTTACAAAGTGATGGAAAGTTTT 1612 ATCAAAGCAGAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAAGGATGTGAAGAT 1672 GGAATCAIGGAAIGCGIIGCAIGGCICICAGAIICACCIIIAITIGAIGIIAAITAAAGAA 1630 (TOTAGAATAATGAGACHGTAGATATGIALCIICICCTGTAAGATCTCCAAAGAAA 1852 AAAGGITAAAPIA GAGITAAAITGIAGIGGAAATGAAAGAGAGAGAAGAAGAACAAGC 1912 ITCCAGAGGCAGAAGGGAFIGAAATCIAGGTCITICACTGTTTAIAAAAAAGTGIAI . Ö ā. Di g 9 g ò â Ś qq ò QQ ò qq q 90 qq  $^{\circ}$ Ś ò ŝ ò

```
2290 ICAGAAGGICLGGGAAGAGAAAAAAGGCICCAAGATGAGAALCILAGTATGAAFT 2349
                                                                                                                                                                                                                                                                                                                                                                                                      HITTELLER FELLERANGA LOGA GARAGA GARA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZS 40 AAATITCAGCAGAAACIGGCAGAAAIGACITCIACIGGAACAGGAATGGAAAAAGGAAA 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28/2 AGGITCIGITIALGGCCACATITAAFAICTICAGCIGITITIGIGGAAAAAAAGGGGA 2931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2710 ABSTRUTTITATOGCCACATITAATATCTTCAGCTCTTTTTGTGGGATATAAAATGTGCA 2769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2932 GALGCAALLCIILIGGGGALLCTTAAGGCACTTGAAATGTTAGTTGTTATTACA 2991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28.50 AGALIGAMAAATGI GI GAAAA GCI GCCALITAAAAAGTI GYAGGAGATI I GTI I CCTCTT 2889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3052 COAAAGTAAAATTGCTGTGCTTTATGGATAGTAAGAATGGCCCTAGAGTGGGAGTCCTGA 3111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2890 CCANAGIANNATIOCIGITIAIGGAINGIANGANIGGCCIAGAGIGGGAGICTGA 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4172 TGTTTTTATTAATTTATATGTATATTTTTTAATTTAACATGAACACGGGGGAAAAATGT 3231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4242 GTGCFFATGTATGTTGGAAATGGAATTTGATTGAGTGGGGATTGAGAAATTATGGTGAA 3291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41.40 CTCTTCTGCAAAAALGGATALTATTAGAAATTAGAAAAATTACTAATTTTAGACATTA 3189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2452 FCAGAAGGTCTGCCAACACAACAAAAATGACTCCAAGATCAAGAATCTTAGTATCAATT 2511
                                                                                                                                                                                                                                                                                                                                                   2572 GACCHOTOTOCAAAAGAAGTOCTGAAGGAAGCAAGCCTCCTAAAGCAGTGAAAAAGTA 2631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2692 AAATTPOAGGAAAACTGGCAGAAATGACTTGTACTCGAACACGAATGGAAAAGGAGAAA 2751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2992 AGATTGAAAATCTTGTGTAAATCCTGGCATTTAAAAAGTTGTAGTAGTTGTTTGCTCTT 3051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3112 TAAGGGGCGTGTGTGGCTACTTTGCCTTGTTGTAGCATATAGGGGTGTTTGCTCT 3171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1292 PER FERENCE PARAMATER AND A FERENCE AND TRACEAST FERENCE 3351
                                                                                                                                                                                                                          455 GATTTTAFTTTAGTATTGGAATCTGATATACTGTGGGTTGTTTTATAAAATTTTGGTTT
                                                                                                                                                                           2512 OCTGANICALICGOGACHICGGAAAGIICCAGAAANIAAAICAAGAIGGIAIGTAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2752 ATGAATGATAGCALGGALACTICAAACAAGGAAGAAATGAGGATCTCAGGACCTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2590 AFGATGAFAGGTGGATGCTCAAACAAGGAAGGAATGAGGATGTGAGGACTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2812 GGACACTGTGTACACCTCTGGATTCATTGTGTCTCACACACTGTGACTGTATATAACTTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26 (2. COSTETGATATEGAAGGATGAGATGAAGCAGAAGTAAAGATGAAGAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                            7.5
                                                                                                                                                                                                                                                                                                                                                                                                                                           î
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          50
```

```
6: Mismatches 4: Indels 93: Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TILLE OF INVENTION: MODIFIED RELINOBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 10; Length 4461;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 4351.6.
Prod. No. 0;
                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: 1BM PC compatible
OPERALING SYSTEM: PC-DOS/MS-1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: 7.,2697
SEQUENCE DESCRIPTION: SEQ ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                       Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                                                                                                      Sequence 40, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 22-Dec-1999
4532 ITTAAATGAGGATIATIGATAGT 3554
                  3370 TTTAAATGAGGATTATTGATAGT 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                  PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: 512/418-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 3461 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                     STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID No: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94.38;
                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                         Xu, Hong Ji
Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 3457, Conscivative
                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 77210-4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                  CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                        STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX:
                                                                                                                                                                           APPLICANI:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-40
                                                                                                       US-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

á	181 GTATTATGTCAGAAATTAAAGATACCAGATCATGTCAGAGAGAG	8.8
<u>د</u> ء	GAGAAAGELICATCTGTGATGGAGGTATTGGGAGGTTATATTCAAAAGAAAAAGGAACTG	3
g <u>8</u>	ISSERTATE TOTAL TATTECAGE AUTEGACTIAN SELECTED TO THE FORM   1	ف ع
속 골		2 2
<b>₹</b> £	LOATANDAGLANDAAAGUHGAHAAHGCHAHCHAAGAGNGNGAAGAAGRANGATGTATHG 4 TELLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTIL	
<u>ې</u> چ	ITTGCACTCTTCAGGAAATTGGAAAGGACATGTGAACTTATATATTTGACACAAACCGAGC	ママ
يد په	ASTROGATATOTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACATTT 6 ASTTSGATATCTACTGAAATAAATTCTGCATGGTGCTAAAAGTTTCTTGGATCACATTT 5	000
چ چ	TIATTADCTAAAGGGGAAGTATTAGAAATGGAAGATGATGTGGTGATTGGTGATTTGGTTTA 6	.60 .67
45 45	ATSCIATGTGTGTGTGTTTTTTTTTATTANCTGTGAGGTGGGTGGTGGTGAAAAAAGGA 7 	20
क्ष क	2) TATAMAN'AGCIGITATACCCATTAATGCTCCAACCCAGAGCGAGGGAGGTCAGAAC 7 CTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	80 87
£ ~	AGGACTROATGCAAAACAACTACAAATGATACAAGAATTATTGAACTTCTCTCTT	40
	AAAGAN'AIGAATGTAATATAGAIGGGGGAAAAATGTTTATTTCAAAAATTTTTATACCT 9	0 0
		60
	AAACCA LACCAAGAAATTTATCTTAAAAATAAGATCTAGATGGAAGATTATTTTGGAT 1 	020 27
***	*ATGATAAAACICITCAGACIGATICIATAGACAGITITGAAACACAGAGAACACCACGA 1 	080
- 동 등	AAAASTAAUCTIGA IGAAGSTGAATGI AATTCCTCCACACACTCCAGTTAGGACTGTT	14
	ATGAAFACTATECCAACAATHAATGATGATTFTFAAATTCAGCAAGTGATGAACGTTFCAGAA 1 	200
	2.1 ANTOTGATTTCCTATTTTANCAACTGCACAGTGGAATCCAAAAGAAAGTATTGGAAAAGA 1 .11.11.11.11.11.11.11.11.11.11.11.11.1	
5 B	24. TOBARDA BARGALAMATTITTAAAGABAATTIGIAAAAGTOOGGAGAGGITGT T TITTITTITTITTITTITTITTITTITTITTITTITTI	32

60. qq	1321 1228	321 GTCGAAATIGGAICACAGGGAIACAAACIIGGAGHLCGCIIGIATIACCGAGTAATGGAA 1380 HITTIHIHIHIHIHIHIHI 228 GICCAAATIGGAFGAGAGAAAATIGGAATTGGAATTGGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATAAATTGGAATAAT
مع و	1381	TCCATGCTTAAATCAGAAGAAGAATATCCATTCAAAATTTTAGCAACTTCTGAAT 1440 
ov v	1441	GGGAGCATTTTTCATATTGTCTTTATTGGCGTGCTTTTGAGGTTGTTGTATGCGCGAGATTTTGTATGCGCGAGATTTTTGAGGTTGTATGGCGTGGCGGTGGTGTTGTTGTGGGGGGGG
qq	1348	GANAANTITITATATATGICITIALESESIGOGCTCTIGAGGITGIAATGGCGANAIAT 1407
Qy Db	1501 1408	AGCAGAAGTACATCAGAAICTICALICIGGAACAGAILIGICCTITCCCAIGGATICIG 1560 
QY	1561	AATGEGCTFAATTTAAAAGCCTTGATTTTACAAAGTGATGGAAAGTTTTATGAAAGA 2620
qq	1468	AATGTGCTTAATTTAAAAGCCTTTGATTITTACAAAGTGGAAAGTITTATGAAAGA 1827
Oy Dp	1621 1528	GAAGGCAACTTGACAAGAGAAATGATAAAACALTTAGAACGATGTGAACATGGAGATATG 1680 
yo da	1588	GAATCCCTIGCATGGCICTCAGATTCACTITATITGATCTIATTAAACAATCAAAGGG 1740 
Qy	1741	GGAGAAGGAACTGATCACTIGAATCIGCTTGTCCTCTIAATCIICCICTCCAGAAT (800
qa	1648	
δλ	1801	AAVCACACTGCACCAGATATGTATCTTTTCTCCTGTAAGATCTCCGAAGAAAAAGGTTCA 1860
qq	1708	AATCACACTGCAGCAGAATAIGIALCIIICICCIGIAAGAACCCCAAAGAAAAAAGGTICA 1767
yo da	1861	ACTACGEGRAATECTAGEGAAATGGAGAGCACAAGCAACCTCGAGCTTCCAGACC 1920 
č.	1921	CAGAAGCCAIIGAAAICIACCICICITICACIGIIITATAAAAAAGIGIAICGGCIAGCC 1980
qq	1828	
Qγ	1981	TATCHCCGGTTAAATACACTTTGTGAACGCGTTCTGTCTGAGCACACAGAATTAGAACAL 2040
qq	1888	TATCTCCGGCTAAATACACTITGTGAACGCCTCTGTGTGTGTGTGTGTTTTTTTTTT
Ολ	2041	ATCATCTEGACCCTTTTCCAGACACACGCAGAATGAGTAIGAACTCATGAGACAGG 2100
qq	1948	ATCATICTICGACCCTITTICCAGCACCCTGCAGAATGACTATGAACTCATGAGAGACAGG 2007
Oy	2101	CALTEGRACOAAAITAIGAIGIGIICCAIGIAIGGCAAAGIGCAAAGIGAAATAIAGC 2160
qq	2008	CATITGGACCAAATTATGATGTGTTCCATGTATGGAAAGTGAAAGTAAAGAC 2067
δλ	2161	CTTAAATTICAAAAPCATTIGTAACAGCATACAACGATCTTCCTGATGCTGTTGAGGAGAGA 2220
qq	2068	CTIAAATTCAAAATCATTGTAACAGGAIACAAGGATCTICCICATGCIGTICAGGAGACA 2127
40	1555	TTFAAAFGTGTTTTGATFAAAGAAGAGAGTATGATTGTATTATAGTATTGTATAAFGT 2280
qu	2128	THO AAAOOHTITIGA IQAAAGAGAAGAGAGTATGATTGTATTATAGTATTGTATAACTGG 2187
Ωλ	2281	GEVITCATSGRABACTGAAAAAAAAATI HIGAAGTATGCITCCACOAGGCCCTTACC 2340
da	2188	GECTTCATGCAGAGACTGAAAAAAAAATTTTGCAGTTGCTTGC
QY	2341	THEFT ACCAMPACTICACATTCCTC CAAGCCTTACAAGTTTCCTAGTTCACCCTTACG 2400
qq	2248	TTGTCACCAAIACCICACAIICCICGAAGCCCIIACAAGIIICCIAGHICACCGTIACGG 2307

```
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                           RESULT 7
US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          òγ
2401 ATTOTEGAGGAACATCTAIATTECACCCTGAAGAGTGGATATAAAATTTCAGAGGT 2460
                                   2521 HPGGGATHFIGAGAAGHPCAAAAHAAALGAAHGGATGFATGTAAAAGGGGGGGGG 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2461 PTGPPAAPAPPAAAAAAAAAAAAAAAAGATGAAGAAGTTAGTALPAATTGGTGAATGG 2520
                                                                                                                                                                                                                                             Z 45 B (C 100) A ANCIA GLANDANA MANDE COANGA I CANAGA I CITA I CANAGA I GOSTIGA I CANAGA A 2427
                                                                                                                                                                                                                                                                                                                                                                                    24.28 TECOGRACI PERSONA SANDA SANDA SANDRIAN SANDRA SANDRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2581 CTCAAAASAAGGGGGAAAGAAGGTOTGTAAAGGAAGGAGGAAAAAAAGTAGGTTGAT 2640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2488 PLOAAAAAAUQTIGAAGGAAAAAAGGCIGGIAAAGGAGGAAAAAAGAAGIAGGITTGAI 2547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   264 FALIDAAGGALGAGALGAAGCAGAAGTAAAGATGTGGCAGGAGAGTGGAAFTTGAG 2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2701 CAGAAACHGGCAAAA GACHICIACHCGAAGAAAIGGAAAAGGAAAAAAIGAATGAT 2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2761 AGCATGGATACCTCAAACAASSAAGAGAAATGASGACACTCTCAGGACCTTTGGTGGACACTGT 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2821 GIAMAMMINGGATTOATTOTOTOTOTOAGAGGTGAMIGRAMAAMMINMOAGGITTOTO 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2728 GIACACCTCGGATTCATTGTCTCTCACAGATGTGACTGTAIAACITTCCCAGGITCTGT 2787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2881 TIATGGCCACATTTAATATCTTCAGCCCTTTTTGTGCATATAAAATGTGCAGATT 2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2788 TEATOROCACASTERALATORI FERTILI FERTILI FERTILI FERTILI TOTOCACATATACAATT 2817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2941 GITTGGGTGATTCCIAAGGCACTGAAATGITAGICAITGITATTGAAGATTGAAA 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2848 GITTGGGGGATGCGAAGCACTIGAAATGTTAGLGATGTTAGTTATTTATAAAAAGATGAAA 2907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1001 ATCH GIGTAAA GC GGCATTTAAAAAGTIGTAGGAGAT IGTTTTTGTCTTGCAAAGTAA 3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2908 AFCIFGTGIAAATCTGGCATITAAAAAGTIGIAGGAGAITGTTGGTGTGGAAAGIAA 2967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (061 ANTIGCICLOTITAT/CATACTACCATGCCCTACAGTGCGACCCTGALAACCCAGG 3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          §1.2.1 CCTGTCTGACTACTTTTGCCTTTTTGTAGCATATAGGTGATGTTTGCTCTTGTTTTAT 3180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3)81 JAAFITAIAIGIAJAIHIHHAAFITAAGAIGAAGAGGCFFAGAAAAJGIGIGCFAJCF 3240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3147 STATETTATATGTATATTTTTAATTTAACATGAACACCCTTAGAAAATGTGCCTATCT 3147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 ATCLICCAALGCAALLGALLGACCCCATCAGGAAAATAALGTGAACTGTGGAACTGTGAAATTGTGGG 3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3360 AAAAATGGATATTATTAGAAATTAGAAAATTAGTAATTTTACTAATTTACAAATTAGTTTTATT 3360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5208 AAAAALGGALALIATAAGAAALLAGAAAAAATTACHAAFTTTTAGAGALTAGATTTTTATT 3267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3361 TTACLALIGGAALCIGALALACIGIGEGCHGTITTAAAANTTEGCITTTAATTAAAT 3420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4421 AAAAGCIGGAAGCAAAGTATAACCATATGATACTATACTIACTIACTIGAAAGAGAGATTTGATA 3480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3.428_AAAAGCTGGAAAGGAAAGTATAAGGATA FGATACTATACTGAAAGAGATTTTCATA_3.87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4481 COTCAGAATGTAAAAGAANITACITGATTATITITCTTCATGAACITATGTTTTAAATGA 3540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                        Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \stackrel{>}{>}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
```

```
240 GGAGAAAGTTTCALCIGGGAIGGAGITALIGGGGIIAIAIICAAAAAAAAAAACT 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   800 GTGGGGAATGTGTATCTTTATTGCAGAGTTGACTTAGGTGALALGLGGLLGACTTTTAG 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69 GTGGGGAATGTGTTTATTGCAGCAGTTGACGTAGAGATGTCGTCTTGTTTAT 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              860 TIGAGCITACAGAAAAAATAGAAATICAGTIGTICATAAATTICTITTAACTTACTAAAAAAAT 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93.28; Score 3311.8; DB 10; Langth 3323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 7, 2559
SEQUENCE DESCRIPTION: SEQ ID NO: 42:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILLING DATE: 22-Dec-1999,
CLASSIFICATION: -Gukhown>
PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                              Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                     Sequence 32, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DAIE: «Unknown»
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6597...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  186. 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                APPLICANT: Xu, Honq-Ji
                                                                                                                                                                                                                                                                                                                                          Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 3313, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77210 4433
                                                                      3541 GCATTATTGATAGT 3554
                                                                                                                   3448 GGATTATTGATAGT 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Houston
```

Page 14

등 중 중	4 - 4 0 4 5	FESTACONSTRUCTANTECTANTECTANGETANCANTANCANTANCANCANCANCANCANCANCANCANCANCANCANCANCA	479 248 530
	4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	######################################	539 308
	540	3 FEGA ALCIACIGAAATAAA TICIGCATIGGIGCTAAAAGTITCITGGAICACATT FELLELLELLELLELLELLELLELLELLELLELLELLELL	599 368
	(609)	ITTATTASCTANAGGGSANGTATTACNANTGGNAGATGATCTGGTGATTCATTCAGGT (	659 428
شيد اخد	4.74	PSGIALSTGICCIIGACIAIIIAIIAIIAAGICICAGCICCCAIGIIGCICAAAGAACC FELEVELELELELELELELELELELELELELELELELELE	719 488
	720	ATACCCATTAATGGTTCACCTCGAACCCCAGGGGAGGTCAGAA 	7 4
ية ج	18 t	GGAGTACATGGATAGGAAAACAACTAGAAAATGATAGAAAATTATTGAAGTTCTCTG TELLITELLITELLITELLITELLITELLITELLITELL	839 608
<u>پ</u> چ	6 TE 4	TAATATGARGAGGGGAAAAAGGTTATTGAAAAATTTATTGG 	899 668
<u> </u>	900 669		959 728
જ ફ્રે	94.0	AACGATA'GAAGAAATTTATCITAAAAATAAAAGATCTAGATGCAGATTATITTIGGA 	○ 30
돈 용	1020 789	ISAAACACASASAACACCACG 	⊙ <b>4</b>
	1080 1080	AAAAGTAACCTTGATGAGAGGTGAATGTAATTCCTCCAC **	
چ چ	\$11 \$411	A TATCCAACAATTAATGATGATGATTTAAATTCAGGAAGTGATCAACGTTCAGA TEELELELELELELELELELELELELELELELELELELE	1199 968
s ė	1200 969	NECEGATITECTATITAACAACTGCACAGTGAATCCAAAAGAAAGTATACTGAAAAG FEFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	1259 1028
> 곡	1265 1029	ATAGGATACATC TITAAAGAGAAATT 	1319 1088
ş. Ą	4 8	TSTCGAAATTGGATCACAARACAAACTTGGAGTTCGCTTGTATTACCGAGTAAT 	1379
يد د	© 5 2 5	AAA EGAGAAGAAGGATTALCCATTCAAAATTTTAGGAAAGT 	1439 1208
18 Li		HITTCATALGECTITATEGROEGOCOCOTICGAGGITGTAATGGCCAC HITTLIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI	1499

2460 GAILGCEGGAGGGAACAICIAIAIIFCACCCEGAAGAGICCAIAIAAAAIIFCAGAAGG ±453 2460 TCFGCCAACACCAACAAAAFGACFCCAAGAFCAAGAFCFFAGFATCAATGAAFFG 2519 2520 ATTCGGGACITCTGAGAAGTTCCAGAAAIAAATCAGGATGTATGIAACAGGGACCGG 2579 2289 ATTOCCCACTICTGAGAAGTICTAGAAAATAAATGAGATGGAGGACGGGG 2448 2580 GCTCAAAAGAGGGCTGAAGGAAGCAACCCTCCTAAACCACTGAAAAAACTACGCTTTGA 2639 1500 TAGCAGAAGTACAGAAATCTTGAATTCTGGAACAGALTTGEGTTGGCATGGATTCT 1559 1329 GAATGTGTTTAATTTAAAAGCTTTGAITITTAGAAAGTGATGGAAAGTIIIAIGAAAAGC 1388 1989 ATTCAAACCTCTTTTGATCAAAGAAGAGTATAATGALICTALTATAGIATICTATAACTC 2048 2340 CTTGTCACCAATACCTCACALTCCLCGAAGCCCLTACAAGTTLCCLAGTLCACACTTACG 2399 2109 CLIGHERGCAALACELEAGATTECTEGAAGECETFACAAGTITECTAGTTCAGGETTANG ZIA8 1680 GGAATCCCTTGCATGCTCTCAGAITCACCTTIATTGATCTTATIAAACAATCAAAGGA 1740 CCGAGAAGGACCAACTGATCACCTTGAATCTGCTTGTCCTCTTAATCTTCCCCCCAGAA 1629 AAPTAPOROTOTAAATTOTAAAIGTAGAGAGAGAGAAGAAGOTOTAGAGOTTOCAGAC 1920 CCAGAAGCCATTGAAATCTACCTCTGTCTTTCACTGTTTTATAAAAAAGTGTATGGGCTAG 1689 CCAGAAGCCATTGAAATCTACCTCTTTTCACTGTTTATAAAAAAGTGTATCGGCTAGC 1980 CHAICHCCGCCHAATACACTTTGFGACGCCTTCTGTGAGCACCCAGAATFAGAACA 2040 TATCATCTGGACCCTTTTCCAGCACACCTGCAGAATGAGIAIGAACICATGAGAGAGAG 2166 CCITAAATTGAAAATGATTGTAACAGAFACAGA FCITTGCTGATGCTGTTGAGGAGAC 1929 CCTTAAATTCAAAATCATTGTAACAGCATACAAAGGATCTTCCTCATGCTGTTCAGGAGAG 2280 GGTCTTCATGCAGAGACTGAAAACAATATTTTGCAGTATGCTTCCACCAGGGGGGGTTAC 2049 GGTCTTCATGCAGAGAGTGAAAACAAAAIAFTTGCAGGCTTCCACCAGCAGGCCCCAC 1850 AACIACGOGIGIGIAAAATICIACIGOAAAIGOAGAACACAAGAAACCICAGOCTICOAGAC 2100 GCAFFFGGACCAAAFFAFGAFGFFTCCAFGTAFGGCAFAFGCAAAGFGAAGATAFAFACAA 2220 ATTCAAACSTGTTTTGATCAAAGAAGAGGAGTATGATTGTATATAGTATTGTATAAGTC 1620 AGAAGGCAACTTGAGAAAGAATGATAAAAGATTTAGAACGATGTGAACATGGGAALCAT Q C â q q Q  $^{\circ}$ ò qq  $\dot{\circ}$ 

Tue Jan 21 10:04:46 2003

```
2709 TGTTIGGGGATTCCTAAGCCATTGAAATGTTAGTCATTATTATACAAGATTGAA 2758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         228. ATECTICAL CONTROLL CONTROL CONTROL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4050 AAATTGCTGTGTTTATGGATAGTAAAAATGGCCCTAGAGTGGGAGTCCTGATAACCCAG 3119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (120 GCTGTGTGTATATTGCTTGTTTGTAGCAIAIAGGATGTTGCTTGCTTTTA 3179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3239 TIAAFITALALGIATATITITIAAFITAACATGAAGGCCTTAGAAAATGTGTATG 3239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2949 TIAATTTATATGFATATTTTTTAATTTAACATGAACGTTAGAAATGIGIGCTATG 3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4240 TATCTTCCAAATGCAATTTGATTGACTGCCCATTCACCAAAATTAFGCTGAACTGTTCTG 3299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3300 CAAAAATGGATATTATTAGAAATTAGAAAATTACTAATTTTAGAATTAGATTTAT 3359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3189 TAAAAAGTIGGAAGGAAAGTATAAGCATATGATACTATGATACTACTGAAAGAGATTTCAT 3248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4480 ACCTCAGAATGTAAAAGAACTTACTGATTATTTTCTTCATCCAACTTATGTTTTAAATG 3539
                                           2640 TATEGAAGGAFFAGAAGGAGGAAGGAAGTAAAGAFFFFGGGAGGAGGAGAAATFFGA 2699
                                                                                                                                                                                                                        2409 TATTGAAGGATCAGATGAAGCAGATGGAAGTAAAGATCTCCCAGGAGTCCAAATTTCA 2468
                                                                                                                                                                                                                                                                                                                    2760 TAGYATGGATACCTCAAACAAGGAAGGAATGAGGATCTCAGGACCTTGGTGGACACTG 2819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2589 TGTAPACGTCTGGATTCATTGTCTCTCTCACAGATGTGACTGTATAACTTTCCCAGGTTCTG 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2880 TITALGGCCACATITAATATCTTCAGCITTITIGGGATATAAAATGTGCAGATGCAAT 2939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2940 TGTTTGGGTGATTCCTAAGCCACITGAAATGTTAGTCATTGTTATTTATACAAGATTGAA 2999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sobe AARTERGRAAFFTGGGALITAAAAAGIRGTAGGAGATIGTTTGGTGTRGCAAAGIA 3059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2889 GOTGTGTGAGTAGTTTGGCTTGTTTTGTAGGATATAGGTGATGTTTGGTGTTGTTTTA 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4069 CAAAAATGGATATTATTAGAAATTAGAAAAAAAATTACTAATTTACAATTAGATTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.560 TITLACTATIGGAATCHGALALACHGTGTTGTTTTATAAAATTTTTGCTTTTAATTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44.20 TAAAAGCIGGAAAGCAAAGTAIAAAGAIAIAAAGAIAGAAATAGAIACAAAGAAAGAAIIIGAI
3540 AGGALLALIGALAGI 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3309 AGGATTATTGATAGT 3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         :~
_1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;~
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ĩ
                                                                                                                                                                                                                                                                                                                                                                                                     =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ã
```

Sequence 34, Application US/09469522 Patent No. US20020151461A1

GENERAL INFORMATION

```
310 TTTTTATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGATCATCTGGTTTCATTTCAC 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    298 CTGTGGGGAATCTGTATCTTTATTGCAACAGIIGMACUAGGIGATATGGGGTTTT 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          76 ACTGAGGLAGAGAAAAAAAAAAAGAGAGGGGGGGGGGAAAAAHGTITAAA 11ACTAAAAAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             418 ATTGATACCAGTACCAAAGTTGATAATGCTATGTGAAGACTGTTGAAGAAGTALGATGTA 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        478 ITGITIGCACTCITCAGCAAAITGGAAAGGACATGTGAACTIAIATATATTGACCACSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   538 AGCAGTTCGATATCTACTGAAATAAATTCTGCATTGGTGAAAAAAGTTTCTTGGATCAA 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                250 AGCAGTICGATATCTACTGAAATAAATTCTGCATTGGCTAAAAGTTTCTTGGATCACA (09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              598 ITTITIATTACCFAAAGGGGAAGTATTACAAATGGAAGATGATGTGGTGATTFCALTFCAG 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               358 ACTGAGCTACAGAAAAAACATAGAAATCAGTGCCATAAATTCTTTAACTTACTAAAAGAA 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (3 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10 CYGYGGGGAATCYGYAYCYTTYAYTGCAGCYGAGCYAAAYGAGAYGCOTYCYACYYYY 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         91.6%; Score 3253.8; DB 10; Letath 3266; 99.9%; Pred, No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                   ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: 05/09/169,522
                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IHM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO: 34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 41,071
                                         Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DAFF: 22-Dec-1999
CLASSIFICAFION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
                                                                                                                   PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGIH: 3266 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: «Unknown."
ATTORNEY/AGENE INFORMALION:
                                                                                                                                                                                                       STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
                                                                                                                                                        CORRESPONDENCE ADDRESS:
APPLICANT: Xu., Hong-Ji
                      Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hest Local Similarity 99.9%
Matches 3255; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
                                                                                                                                       NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                  ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
                                                                                                                                                                                                                                  CITY: Houston
                                                                                                                                                                                                                                                                               USA
                                                                                                                                                                                                                                                        ĭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION:
                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                      STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-469-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ें
```

	•			
	669 669 1017 729 1077	1137 849 1197 909 1257	1317 1029 1377 1089 1437 1149	1209 1557 1269 1617 1329 1677 1389 1737
11   14   14   14   14   14   14   14	FULLANDS AND STAND AND AND LONG AND	### ##################################	258 NGAGTGAAGGATAAGGATACATCTTTAAAGAAATTTGCTAAAGCTGTGCGACACGGT 973 AGAGTGAAAGTATAGGATACTTTAAAGAAATTTGCTAAAAGTGTGCGACACGGT 974 AGAGTGAAATTGGATACAGGATACAAACTTGGAGTTGCTGTGCGACACGGTAATG 975 AGAGTGAAATTGGATCACAAACTTGGAGTTGCTGTTGTATTACCGAGTAATG 976 AGAGTGAAATTGGATACAAACAATTGGAGTTGGAGTAATG 977 AGAGTGAAATTGGAAAGAAGAACAATTGTGAGTTAATGGAAATTTTACGAAAGTTTTAGGAAACTTCTGGAAAATTTTAAGGAAAGAAA	GACAACATTUTCATATGECTITATION CACAGAGE TO THE CACAGAGAGE TO THE CACAGAGE TO THE CACAGAGAGE TO THE CACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG
- 2 3 2 3 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5	<del></del> -	99 B		= 4 <b>= 5</b> = 4 = 4 = 0 -

```
1918 ACCCAGAAGCCATTGAAATCTACCTCTTTTCACTGTTTTATAAAAAAGTGTATCGGCTA 1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2038 CAMARICATOR GRADON TOTANGA GO PO CONCORA CAGA TOTANGA CONCORDA GAGAGA CON 2097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2098 AGGNATITICHANNAAATTATGATGTGTTQCATGTATGGCATATGCAAAAGTGAAGAATATA 2157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2338 ACCITGICAVATAVATAAAIDOTVAAAAOOTIACAIAAASIITGGIAGIICAACOOTIA 2397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2110 CGGATICCIGGAGGGAACAICTATATIICACCCIGAAGAGICCAIAIAAAAIIICAGAA 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2470 GATAGGATGGATACCTCAAACAAGGAAGAAAATGAAGATCTCAGGAACTTGGTGGACAC 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2158 GACCTTAAATTCAAAATCATTGTAACAGTATACAAGSATGTTGGTGATGTTGTTGAGGAG 2217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1930 ACATICAAACGIGITITIGAICAAGAAGAGGAGIAIGAIICIAIIAIAGIAIICIAIAAC 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2050 ACCTTGTCACCAATACCTCACATTCCTCCAAGCCCTTACAAGTTTCCTAGTTCACCCTTA 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2638 GATATTGAAGGATGATGAAGGAGGAGATGTAGAAGTAAAAGATGTGGGAGAGTGGAAATTT 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2818 ICHCTACACCHCHGGATHCATHGTCTCLCACAGATGTGACHGHATAACTTLCCCAGGTLC 2877
1858 TCAACTACGCGTGTAAATLGTACTGCAAATGCAGAGCAACGAAGCAACGTCAGCTTCCAG
                                                                                                                              1798 AAIAATCACACTGCAGCAGATATGTATCTTTCTCCTGTAAGATCTCCAAAGAAAAAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                2218 ACAPTCAAACOTGTTTTGATCAAAGAAGGAGTATGATTCTATTATAGTATTCTATAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2398 COGATICCTOGAGGGAACAICTATAIICACCCCICAAGAGICCAIATAAAAIIICAGAA
                                                                                                                                                                             1978 GCCIAICICCGGCIAAAIACACITIGIGAAGGCCTICIGIGICTGAGGACCCAGAATIAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2278 Indoportionigoagagagagaaaadaatatitteeactateerieeacoogeeei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2458 GGTCTGGGAAGACGAAGAAATGAGTGGAGATGAAGATGTTAGTATGAATTGGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2170 GOTOTOCCAACACAAAAAAAAAAGACTOCAAGATCAAGAATCTTAGTATCAATTGGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2518 TCATTCGGGACTTCTGAGAAGTTCCAGAAAATAAATCAGATGGTATGTAACAGCGACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2230 TOMETHELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2578 GTGCTCAAAAGAAGTGCTGAAGGAAGCAACCTGCTAAACGACTGAAAAAAGTAGGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2290 CTGCTCANANGANTGTTGANGGANGCANCCTCCTANANGCANTGANAAAACTACGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2350 GAPATIGAAGGATCAGATCAAGCAGATGGAAGTAAACATGTGGGAGGAGGGGGAAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2698 CAGCAGAAACIGGCAGAAAIGACIICIACICGAACACGGAAIGCAAAAGCAGAAAAIGAAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2410 CAGCAGAAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAGCAGAAATGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2758 GATAGCATGGATACCTCAAACAAGGAAGAGAATGAGGATCTCAGGACTTIGGIGGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      λO
                                                                                                                                                                                                                                                                                                                                                                                            Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
```

```
25.00 TGTGTACANCTCTGGATTCATTGTCTCACAGATGTGACTGTATAACTTTCCCAGGTTC 2589
                                                                                                                               8070 ATTITACTATIOGAATCIGATAIACIGIGIGIGITITAIAAAATTITGCITTIAAAIA 3129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4478 ATAPOTERAGAATGIAAAAAAAATTAATTATTTTOTTGATCCAAGTTATGTTTTTAAA 3537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HILLELLE HILLE 
                                                                                    2878 EDITTATOS/CACATTIAATATCTT/CAGCT/FITTIGT/CATATAAAATGTGGGAGATGCA 2937
                                                                                                                                                                                                                                                              2938 AFFOLTIGGGTGALTCCIAAGCCACTGAAATGTTAGTCATTGTTATATACAAGATTG 2997
                                                                                                                                                                                                                                                                                                                                                                                                                                            2998 AAAATOLOIGIAAALGOOGALFIAAAAAHGTAGGAGAHGTHOOLGTIGGAAAG 3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3178 TATTAATITTATATOTATATITTTAATITTAACATGAAGAGGCTTAGAAAATGTGTGCTA 3237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3238 FCTAECH COMANIGCAATH CATHOACHGCCAETCACCAAATHAFCCHGAACHG 3297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2350 TOTATOLICIENCAMALGOMALLIGATIGACIGCCATTCACCAMAMITATICACTICACTITE 3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *298 TGCAAAAATGGATATTATTAGAAATTAGAAAAAATTACTAATTTFACACATTAGATTTT 3357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3358 ALLITACTALIGGAAICLGATALAGIGIGGCTIGITTATAAAATTTTGCTTTTAATTA 3417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2710 AAAAICTIGTAAATOGTOOCATITAAAAGITGTAGGAGATTGTTCCCCTGTACAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2770 JAAAATTGCTGTGTTTAFGGATAGTAGAATGGGGCTAGAGTGGGGGGGGTGATAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3118 AGGCCTGTCTGACTATTGCCTTCTTTTGTAGCATATAGGTGATGTTGCTCTTGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TOMOR SUPPRESSOR PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER REALABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hu, Shi-Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : Sequence 48, Application US/09469522
: Patent No. USZOUZUI51461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15.18 TOAGGAFIALFGALAGI 35.54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4250 TGASSATTAITGAIAGI 4256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SECTION FISH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Bouston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US OF 469 522 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PESULT 9
                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
```

```
4,97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      741 CATTAATGGTTCACCTCGAACACCCAGGCGAAGTCAGAACAGGAGGTGGATAGTAA 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81 AATCAGTGTCCATAAATICTTTAACTTACIAAAAGAAATTGATACCAGTACCAAAGTTGA 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    441 TAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTATTGTTGCTTGTACTGAAAATT 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 AAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACATTTTTATTAGCCTAAAGGGGAAGT 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               681 TETTATTAAACTC1CACC1CCCATGT1GC1CAAAGAACATATAAAAACAGAGTG1TATAC 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  801 ACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAAGATGAATATAATA 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            630 AGATGAGTGAAAAATGITLATTICAAAAAIITTAIACCIIITATGAATICICIIRGGACF 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   921 TGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATACGAAAAATTTA 980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         330 AAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACATTTTTTATTAGGTAAAGGGGAAGT 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    621 ATTACAAATGGAAGATGATGGTGGTGATTTCATTTCACTTAATGTGTGTCTTGACTA 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                001 GGAAAGGACATGTGAACTTATATATTTGACA/AAGGCAGCAGTATTGATATCTGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90.7%; Score 4222.8; DB 10; Langth 3323; 99.8%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7; Indels
                 SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       O. Mismatches
                               CURRENT APPLICATION DATA:
CURRENT APPLICATION NUMBER: US/U9/469,522
FILING DATE: 22.Dec-1969
CLASSIFICATION: OBRIGOM:
                                                                                                                                                                                                                        REFERENCE/INCRET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                             APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                               TELEPRONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                         LENGIH: 3323 base pairs
                                                                                                                                                FILING DATE: <Unknown > ATTORNEY/AGENT INFORMALION:
                                                                                                                                                                                NAME: Hibler, David W.
                                                                                                                                                                                                                                                                               TRIBEAX: 512/474 7577
                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO. 38;
SEQUENCE CHARACIERISTICS;
                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                      7..2559
                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                FOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KFY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
Matches 3227; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                        COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-469-522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

÷.

ECTAMOGRACITICA CACAGARANI TITTI CONTRIBITION IN THE HITTINI H	SGCIAAAIACAC SCACCCTTTGC, LTELLELLILL
SUTTIGAR AAGATTA AAGAGAAA AAGAGAAA	GGCTAGCCTATCTCCC "FAGAAGAFAFGAFGFG
ACTACAGACTIC ACTACAGACTIC ACTACAGACTIC ACTACAGACTIC ACTACAGACTIC ATACAGACTIC ATACAGACTIC COTACAGATIC ACTACAGATIC A	TCTTTCAGTGTTTTATAAAAAAGTGTATGGGGTAGCCTATCTGGGGGTAAAT. TGAACAGYTTGTGTGTGAGAACAGAAFFAGAACAFAYGAFGGGGGCYTT TTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TETTAAAAA TETTAAAAA TETTAAAAA TETTAAAAA TETTAAAAA TETTAAAAAAAAAA	OF EE
- 2 2 5 5 4 8 8 5 5 4 5 7 5 8 6 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	

2061 GTATATOTTGAGAATGAGTATGAATTTAIGAGAGGAGGATTTGGACCAAAITATGAT 2120 1830 GOACACCAGAATGAGTATGAACTCAFGAGAAGAGAGCAGTTGGACCAAATTATGAT 1889 1890 GTGTTPCATFGTATGGAAAGGAAAGTGAAATATAGACCTTAAATTCAAAATCATGT 1949 2241 AGAAGAGAGIATGALICIAHAMAMAHAHACIGGGICTTCATGCAGAGACTGAA 2300 2010 AGAAGAGGAGTATGATATATATAGTATTCTA1AAC18851CTTCATGCAGAGAGCTGAA 2069 2301 AACAAATATTTTGCAGTATGCTTTGCAGGGAAGGAAGGTTTGTTGTCACAAIAGGTCAGAT 2360 2130 TCCTCGAAGGGTLAFAAGTTFGTAGTLGAGGGTTAGGGATTCCTGGAGGGAGCAACGLG\_2189 2421 TATTTCACCCTGAAGAGTCCAIATAAAATTTCAGAAGGTCTGCCAACAACAACAAAAT 2480 2481 GACTICCAAGAATCTTAGTATCAATIGGIGAATTGGGGACTTCTGGAAARTT 2540 2310 CCAGAAAATGAAATGAGATGGFATGTAACAGCGACCGTGTGCTCAAAAAAAAGAAGGCTGAAAG 2369 2601 AAGGAACCCTCCTAAACCACTGAAAAAACTACGCTTTGATATTGAAGGTCAGATGAAGC 2660 2370 AAGCAACCCTCCTAAACCACTGAAAAACTACGCTTTGATATTGAAGGATCAGATGAAGC 2429 2721 TICIACTOGAACACGAAIGCAAAAGCAGAAAAIGAAIGAIAGCAIGGAIACCICAAACAA 2/86 2741 GGAASABAATSABBATCICAGBACCIIGGIGSACACIGISIACACCICICGALICATIG 2840 3081 AGTAAGAATGGCCTTAGAGTGGAAGTCCTGATAACCCAGGCGTGTCTGACTACTTTGGST 3140 1770 TEGEGAAAAAATEETATATAAGGAGGGAAFELAGAAAFATATGATGTGGAAAALLEFAGA 1829 2250 GACTCCAAGATCAAGAATCTTAGTATCAATIGGTGAATCATTCGGGGACTTCTGAGAAGTT 2309 2661 AGAMGGAAGTAAACATCTCCCAGGAGGTCCAAATTTCACCAGAAACTGGCGAGAAATGAC 2720 2490 HTCHACTICGAACACGAATGCAAAAGCAGAAATGAATGAATGATAGCATGGATACCLCAAACAA 2549 2961 ACTIGAAATGIIAGICATIGIIAITIAIACAAGAIIGAAAAIGIIGIGIAAAATOCIGOOA +0-26 2730 ACTIGAAATGITAGICAIIGITAIITAIACAAGAIIGAAAAICITGIGIAAAICCIGCCA 2789 2841 TCTCTCACAGATGTGACTGTATAACTTTCCCAGGTTCTGTTTATGGCCACATTTAATATG 2121 GTGTTCCATGTATGGCATATGCAAAGTGAAGAAAATAGACGTTAAATTCAAAALGALIGL 2181 AACAGCATACAAGGATGTTGCTGATGGTGTGAGGGGAGACALICAAACGIGLLLIGALGAA 1950 AACAGCATACAAGGATCTTCCTCATGTTCAGGAGAGATTCAAGGAGAGATTTTGAAAA 2361 TOTINGARGO TO A PAGE DECEMBER CACCITACOSATICCEGAGGAACAICEA 2190 TATTTCACCTGAAGAGTCTATAAAATTCASAAGGCGGGAACACAACAAAAA 2541 CCAGAAAATAAAICAGATGGTATGIAAGAGGGGCGTGTGTGTGAAAAAAAAAGAGGGTGTGAAAG 2901 ITCAGCTCTTTTGTGGATATAAAATGTGGAATGCAATTGTTGGGTGATTCCTAAAGCC 2790 TITAAAAAGIIGIAGCAGAITGIIICCCICIICCAAAGIAAAAITGCTGIGCTIIAAIGAA 2430 AGATGGAAGTAAACATGTGGGAGGAGTGGAAATTTGAGGAGAAACTGGGCAGAAATGAG 3021 FTFAAAAGTFGFACAGAFFGFTFCFFCFFTFCAAAGFAAAATFGCFGFGFFFFFAFGSAF qc ò  $q_{d}$ ें qq ó qõ qq ŏ d ò qq  $_{\circ_{y}}$ qq Š q ò q  $\overset{\circ}{\circ}$ qq à q ò q òγ ΩP ó ò ò

TOPOLOGY: linear

```
2970 ITAAFITAACAIGAACACCIIAGAAAATGIGCCIATGIATGITGCIGCAAAIGCAAIJIGA 3029
                                                                                                                                                                                   4261 FIGACTGCCCATFCACCAAALTAFCCTGAACTCTTCTGCAAAAFGGATATTAFTAGAA 3320
                                                                                                                                                                                                                               40.40 TIGACTGCCCATTCACCAAAATTATCCTGAACTCTTCTGCAAAAATGGATATTATTAGAA 3089
4141 FOTTITGIAGGATATAGGIGATGITTGGTTTGTTTTTATTAATTTATATGTATATTTT
                                                                                        4201 TIAATITAACAISAACACCITABAAAATGIGCCTATCTATCTTCCAAATGCAATTIGA
                                                                                                                                                                                                                                                                                832) ATTAGAAAAAAITAGTAAFITIAGACAITAGAFITTATITTAGIATTGGAATGTGATT
                                                                                                                                                                                                                                                                                                                                                                                                  4441 AACCATALGALACTA ICALACTGAAAGAGATT IGATACCTGAGAATGLAAAAGAACT
                                                                                                                                                                                                                                                                                                                                                                         4381 ACTOTOTOTOTITITIAIAAAATITIGOTITITAATIAAAIAAAAGUUGGAAAGIAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3210 AACCATATGATACTACATACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACT
                                                                                                                   501 TACHMATTATTTTCTTCATCMACTTATGTTTTTAAATGAGGATTATTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IIILE OF INVENTION; MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCEZDOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM Of COMPATIBLE
OPERATING SYSTEM: PC DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILLING DATE: 22-Dec-1999
TLASSIFFCATION: - Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Application US/09469522
Patent No. US20620151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 512/418:3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 4218 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            · Unknown ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY, AGENT INFORMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREEL: P.O. BOX 4433
CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Hiblor, Dayld W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACLERISINGS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NOT 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      meleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu. Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hat. Shir Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIAIE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US 09 469 522 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PESULT 10
                                                                                                                                                                                   5
                                                                                                                                                                                                                               ÷
                                                                                                                                                                                                                                                                                                                        =
                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
```

```
943 GAGGITGAAAATCITICTAAACGATACGAAATTIALCITAAAAAIAAAAGALCIAGAI 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1003 GCAAGATTATTTTTGGATCATGATAAAACTCTTCAGAATGATTCTATAGA/AGTTTTGAA 1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   063 ACACAGAGAACACCACGAAAAAAGTAACCIIGALGAAGAGGIGAATGGIAATTCCTCCACAC 1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1123 ACTCCAGTTAGGACTGTTALGAACACTALCCAACAATLAALGALGALTLAAALLCAACA TTHZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ii83 ASTGATGAAGGTTGAGAAA1GTGATTGCTATTITAACAACTG ACAGTGAATGCAAAA 1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              667 GCAAGATTAITTTIGGAIGAIGATAAAACHCIICAGACHGATTCIAIAGACACHHIGAA 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           727 NUNINGAGANANANGAGAAAAAGIAACCIIIGA IGAAGAGIGAATGIAALIFE LEFACAC 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         787 ACTCCAGTTAGGACTGTTATGAACACTATCCAACAATTAATGATGATTTTAAATTCAGCA 846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    343 ATGTCGTTCACTTTTACTGAGCTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTT 402
                                                                                                                                                                                                                                                                               403 AACTTACTAAAAGAAATTGALACCAGTAGCAAAGTTGALAATGCTALGTCAAGAATGTTG 462
                                                                                                                                                                                                                                                                                                                                                                                  523 TATITGACACACCAGCAGITCGATATCIACIGAAAIAAATICIGCAIIGGIGCIAAAAA 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       643 GIGATITCATITCAGTIAAIGCIAIGIGCTIGACTIGACIAITTIATTAAACTCTCACTCCC 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          763 CCCAGGCGAGGTCAGAACAGGAGTGCAFGGAAAAFAACTAGAAAFTAAAAA 822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      823 ATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAGAGGTGAAAAATGTTAT 882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  883 TICAAAAAIITITAIACCITTIAIGAATICITIGGACTIGIAACAICTAALGGACTICCA 942
                                                                                                                                                                                                                                                                                                                     b) AACITACIAAAAAAAAAIISAIASCAAAGIIGAIAAIGCTATGTCAAGACTGTTG 126
                                                                                                                                                                                                                                                                                                                                                           463 ABGANGTATGATGTTTGCACTCTCAGCAATTGGAAAGGACALGTAATA 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         583 GTTTCTTCGATCACATTTTTATTAGTTAAAGGGGAAGTATTACAAAATGATGATCTG 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         367 ATGTTGCTCAAAGAACCATATAAAACAGCTGTTATAACCATTAATGGTTCACTCGAAGA 426
                                                                                                                                                                                                                      7 ATGTCGTTCACTTTACTGAGCTACAGAAAACATAGAAATCAGTGTCACATAAAATTCTTT 66
                                                                                                                                                                sdpp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   187 TATTIGACACACACCAGCAGTICGATATCIACIGAAATAAATTCIGCATIGGTGCTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90.4%; Score 4212; DB 10; Length 4218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indols
                                                                                                                                                                0,
                                                                                                                                                           0; Mismatches
                                                                                                                                        Prod. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ ID Not 3:
                                                                                                                                        100.08;
                                                                                                                                                           Matches 3212; Conservative
                  NAME/KEY: CDS
                                                                                                                                        Local Similarity
FEATURE:
                                                                             US-09-469-522-3
                                                                                                                      Owery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                             à
```

. -.

466 1952 1926 1986 1482	1146 11542 11206 11602 11266 11662	72 38 78 44 84	.902 .566 .962 .626 .626	08 74 14 80 80 86	98 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
ACATC	CTICTGAATGACAACATTTTTCATATGTCTTTATTGCCGTGCCTCTGGGGCGCTTCGGGGCCTTCGGGGGCCTTCGGGGGCCTTTGGGGGG	DETCAGATECACTTATTEGATOTT 1 111111111111111111111111111111111	AAAGSTECAACTAGGGGTGTAAATECTACTGGAAATGGGGGGGAGACACAAGGA HHHHHHHHHHHHHHHHHHHHH	AGAATTAGAACATATCATCIGGACCCITITCCAGCACACCCIGCAGAATGAGIAF 2  THIFFIFIELLIHILIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIH	ATGCTGTGGGGGGACATTCAAACGTGTTTGGTCAAASAAGAGGGGTGTGGTTGTTTTGTGTGCTGTTGTTTTTTTTT
96.7 96.7 96.7 10.27 142.4	2	1563 1 1323 6 1323 6 1383 6 1447 7	~ ~ ~ ~ ~	~ ~ ~ ~ ~	203 263 423 423 487
ê 5 d 5 d 6 7	ខ្ទុំង្គិតខ្ទុ	5 4 V 4 5 2	5 8 5 8 5 8	្រូវ និង	के बे हैं है है है

2982 2047 CTTAGTTCACCTTACSGATTCCTGGAGGSAACALCTALATTCACCCTGAASAGTCCA 2106 2347 GOAGAGTOOAAATTTGAGAGAAAGTGGGGAGAAALGACTTCTAGTGGAAGAGGAA 2436 2107 TATAAAATTI ÇAGAAQSIÇIQQQAAQAAQAAQAAAAIGAC) QAAGAIGAGAAAAIGA 2167 GPAVGAAVIOGIGAAVIOGIGAAVIOGIGAAVIOGIGAAVIOGIGAAVIOGIAAVIOGIAAVIOGIAAVIOGIAAVIOGIGAAVIOGIGAAVIOGIGAAVIOGIAA 2563 TOTAACAGOGAPPORTOTOTAAAAAAAGTGAAGGAAGCAAGCOTOGTAAACAAT 2007 PSTARCASCSACCSTSFACTCAAAGAASSSCSCSAASSAAGCAACCTCCTAAACCASTS 2623 AAAAAACTACGCTTTCATATTCAAGGATCAGATGAACCACACATGGAAGTAAACATCTCCA 2287 AAAAAACTFOOFFTTGATFATFIGAAGGATCAGATCAACCAGATGGAACTAAACATGTCTCA 2863 AATTITOOTABITOISIIIAIGGOOACAIITAAIAITOIIOASGIOIIIIIGISSAIAIA 2527 AACTTI CCCAAGTTOTOGTT TATAGGC ACATTI AATATCTT CAGG CTTTTTI GTGGAATATA 2647 ALTTATACAAGATTGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGTAGAATGATTG 3043 ITTCCTCCAAAAATTGCTGTGTGTTTATGGATAATAGAATGGCCTAA3GAGTGG 2383 COMACHICACOCHTACGCAFTCOTCGAGGGAACATCTATTTTCACGGTGAAGAGTCCA 2503 GTAFCAATFGGFGAATCALCOGGACTFCTGAGAAGTCCCAGAAATAAATGACATGGTA 2923 AAARGROGAGARGGAATTGFFTGGTGATTGGTAAGGGAGTTGAAATGTTAGPGAATTGTT 2587 AAAIGIGCAGAIGCAATIGTTISGSIGATICCTAAGCCACITGAAATGTTAGTCATIGIT 2983 APTFATACAAGATIGAAAAICTTGIGIAAAIGGIGGGATITAAAAAGTTGIAGGAGIIG 2827 CFPFGCFCFFGFFFFTATTAATFFATATFFFTATATFFTTATFFTAAPTFAAACAGCCTT 2683 GGAGAGTOCAAATTTOAGGAGAAAGTGGCAGAAATGACTTOTAGTOGAACACGAATGOAA 2707 TTTCCTCCAAAGTAAAATTGCTGTGTTTTATGGATAGTAAGAATGGCGTAGAGIGG 3103 GAGTOPPARAOCOAGOSOGO GAGAGACIA PROCENTE PILITINA PARAOSOA FILITINA PARAOSOA FIL 2803 GACCPPGGGGACACPGTGTACACCTCTGGGATTCATGGTCTCTCACAGATGTCACPGTAT 2887 AGAAAATGTGTGCTATCTACCAAAAAGCAATTGACCGCTGCCCATTCACCAAAAT 3343 TACACATTAGATTTTATTTTACTATTGGAATCTGATATTACTGTGTTGTTTTTAAAA 3007 TACACATTACATTTTATTTTACTATTGGAALCIGAAACGGGGCGCIGTTTAAAA 2767 GAGICTEGRADA CON AGGOTER TGACIACIII GOCII CITITGIAGOAIALAGGIGAL 3163 GTITGCTCTTTTTTATTAATTTATATATTTTTTTTTTAATTTTAACATGAACACCTT 3223 NGAAAATGTGFCTAFCTAEGTECAAATGCAALTEGALTGACTGCCATTCACAAAAT 2947 TATCCTGAACTCTTCTGCAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTT q a g Š q οÿ q qq ó q q ź aa â d QQ a òλ ô δ ô  $\delta$ ŝ ò ò

Tue Jan 21 10:04:46 2003

```
961 AAACGATACGAAGAAATTTATCTTAAAAATAAACATCTAGATGCAAGALTATTTTGGT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021 CATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAAACACACGA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081 AAAAGTAACCTTGATGAAGAGGTGAATGTAATTCCTCCACACACTCCAGTTAAAACTTAAAAATTGTT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1141 ATGAACACTATCCAACAATTAATGATGATTTTAAATTCAGGAAGTGATGAAGTTFAGAA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661 GAGCTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAAATT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961 GAGCTACAGAAAAAAATGAATGAGTGTCCATAAATTCTTTAACTTACTAAAAAATT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 GATACCAGTACCAAAGTIGATAATGGTATGTFCAAGACTIGAAGAAGTALGATGTATTG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541 AGTICGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGTCACATTT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541 AGTICGALATCIACIGAAATAAATICIGCATIGGIGCIAAAAGIITCIIGGAIGAAIIT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601 TTATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGATCTGGTTTGATTTGATTT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661 ATGCTATGTGCGTTGACTATTTTATTAAACTGGGGGGCCCATGTTGCTGAAAGAAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721 TATAAAACASCISITATACCCAITAATGGTICACTCGGAACACSCAGGGGGGAGAAC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 AGGACTICCACGGATAGCAAACAACTAGAAATGATAGAAGAATTATTGAAGTTICTETTICTE 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                731 -GGTCGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTTTCT 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             910 AAAAGTAAGGTTGALGAAGAGGGTGAATGTAATTGCTGGAGAGAGTGAGTTAAGAGTGTT 969
                                                                                                                                                                                    241 GAGAAAGTTTCATCTGTGGATGGAGTATTGGGAGGTTATTCAAAAAGGAAAGGAACTG
                                                                                                                         301 TGGGGAATCTGTATTTATTGCAGCAGTTGACCTAGGTGATATGTCGTTCACTTTTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841 AAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTTGAAAAATTTTATACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901 TTTATGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          790 AAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGGAAGATTATTTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      970 ATGAACACTATCCAACAATTAATGATGATTTTAAATTCAGCAAGTGAACCTTCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7.21 TATAAAACAG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>q</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                 ô
                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      입
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3463 ACTGAAACAGATI CATACO CAGAA EGTAAAGAAGTTACTGATTATTT GTTCATGA 3522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 COGGAGACCEGCEECEFCAGGCFFGAGTTTTGAAGAAGAGAAACAGAACEFGAFFFFAGF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           indels 171; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PROGREGATION OF CONTRACT OF THE PROGREGATION OF THE PROGREGE OF THE PROGREGATION OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Benedict, William F.
Zhou, Yunti
TILLE OF INVENTION: MODIFIED RELINOHLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89.8%; Score 3192.4; DB 10; Length 3383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PP-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                   3524 ACTIATGITITIAAATGAGGATTATTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                              1187 ACTIALGELITEAAATGAGGALIAFIGATAGT 3218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Prod. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DAFA: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Hiblor, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                            Sequence 48, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGIH: 3383 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: + Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO. 48:
SEQUENCE CHARACIERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Bong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                   Pateut No. USZ0020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAMEZKEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                est Local Similarity
                                                                                                                                                                                                                                                                                                    US 09 469 5.22 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US 09 469 522 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 4477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Duery Mateh
                                                                                                                                                                                                                                                                             RESULT 11
                                                       Ē
                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
```

7.40

1.1   110AM12A IA ADDALAMANDA BARATTI DETAMANDE SIGNAMANDE 1149   1.2   110AM12A IA ADDALAMANDA ADALAMANDE SIGNAMANDE S																	
	32 14 38	25 44 25	3.2	3.8	62	168 150	74	30	36	32	æ ⊃	\$ 6	92	9 8	2.2	10	34
		TO STOUMMANTOURNING THE MAN THE MAN THE MAINTEN THE MEDICAGES AND SEAT OF SEAT	BACAACATHTECATATED OFFICE OF	AGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTCCCATGGATTCT 	AATGEGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATGGAAAGTTTATGAAAGC 	ZI GAAGGMACHIGACAADAGAAAHGAHAAACATTTAGAACGAIGTGAACATGGA FELFILLIH FILLIH HITH HITH HITH HITH HITH HITH HITH	81. GAATOCCI I BOATGOTICH PAGATTOACCITTATTTOATCHTTATTAATTAACAATCAAAG 1. HTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	41 - GAGAAGGACCAACTGATCACCTGAATCTGCTGTGTCCTCTAATCTGCCTCTCACGAAT 	TO ANTORCACHOCACAGATATICTITICTICCTCTAACATCTCCAAAGAAAAGGTTCA 	(6) ANTRAGOGIGIAAATTETAGNAAATGOAGAGACAACAAGCAACCTCAGCCTTECAGACCTTCAGAGCAACTTTTTTTTTT	21. PAGAAGCATIGAAAFGIACCIGIGITICACIGITITATAAAAAAGIGIAGGGGGGGGGCAGCC. FELLILI FELLILI HILLI AAAAAAGIGIAGGGGGAAGCCAAGCCAAGCCAAGCCAA	BE TATCHCODD AAATACAOTH GAACOCHICHCHOGAGACCGAGAATAGAACAF FILLFILLFILLHIHHHHHHHHHHHHHHHHHHHHHHHH	41 A DA LO DO ACO CONTROCA CO ACCO CO CACA AND ACTO A DA ACTO A ACTO A DA ACTO A DA ACTO A ACTO A ACTO A DA ACTO A A	: CALTIGGA-CAAALTATGATGTGCACGTGTAGGCATATGCAAGAAGTAAGACGAAATATAGACGAAATTATGATGTGTGCATGTTTTTTTT	+; -11AAA1E7AAAAICA1IGIAACAGCAFAGAAGGATCHICITGHIGHIHHHHHHHHHHHHHHHHHHHHHHHHHHH	2) TICAAACGIGITHIGATCAAAGAAGAGAGIATGAFICTATFATAGIAFICTATAAAGG FIFTETETETETETETETETETETETETETETETETETET	81 BICTICATORAGAGACIGAAAAAAAAATTITGCAGIAIGCITCCACCAGGCCC FILLILLILLILLILLILLILLILLILLILLILLILLILL
								1	1						~ 1	Y 2	A (A

2401 ATTCCTGGAGGAACATCTATATTTCACCCTGAAGAGTCCATATAAAATTTCAGAAGGT 2460 2341 TEGEGACCAATACCECAGATECCECGAAGCCCTTACAAGTETECCTAGTECAGGCEFAGGG 2400 2290 CTGCCAACACCAACAAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAATGA 2349 2350 TTCGGGACTTCTGASAASTTCCASAAAATAAATCAGATGGTATGTAACAGCGACCGTGTG 2409 2461 CTGCCAACACAACAAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAATCA 2641 ATTGAAGGATGAATGAAGGAGGAAGTAAAGTAAAGATGTGGGASSAGAGGGAAALLIGAG 2470 ATTGAAGGATCAGATGAAGCAGATGAGGAAGTAAACATGTGGGAGGAGAGTGGAAATTTGAG 2650 GTACACTCIGGATICALIGHTHHHHHHHHHHHHHHHHHHHHHHHHHHHHH 2881 PTATROCCEACAPPAATATCTTCAGGTCTTPTPTGTGGATATAAAATGTGCAGAFGCAATT 2710 TIATGGCGCACATCIAAIAFCTFCAGCTCTTTTGTGGATAIAAAATGTGCAGATGCAATI 2941 GTTTGGGTGATTCCTANGCCACITGAAATGITAGTCAITGITATTATACAAGAITGAAA . 2770 GTYPOGOGGATTOCYBAGGGAGTTGAATGTTAGTGATGTTATTTATAGAAGATTGAAA 3001 ATCTTGTGTAAAATCCTGCCATTTAAAAAGIIGIAGAAATTGTTGCTCTLCCAAAGIAA 2830 AICTTGTGTGCTGCCATTTAAAAGTTGTAGCAGATTGTTTGCTGTGTTCCAAAGTAA 3061 AATTGCTGTGCTTTATGGATAGTAAGAATGGCCTAGAGTGGGAGTCCTGATAACCCAGG 2890 AATTGTTGTGTTTTATGGATAGTAAGAATGGCCTAGAGTGGGAGTCCTGATAACCCAG 2521 THEOGRAPHICHGAGAACH FERAGAAAATAAATGAGATGGTATGTAAGAGGGAGGGEGG 2581 CTCANAAGAAGIGCIGAAGGAAGCAACCIGCIAAAACGACIGAAAAAACIACGCIIIGAI 2701 CAGAAACTGGCAGAAATGAGTTTGTAGTGGAACAGGAATGCAAAAGCAGAAATGATGAT 3181 TAATTTATATGTATATTTTTTAATTTAACATGAACACCCTTAGAAAATGTGTGCTATGT 3070 ATCTICCAAATGCAATTIGATTGACTGCCCATICACCAAAAIIAICCIGAACICTTCIGC 2821 GTACACCICIGAATFCATTATCICICAGAGAGIGIAIAAACTTGCCAGGIICH 3121 CCTGTCTGACTACTTTGCCTTCTTTTGTAGCALALAGGIGAIGTTTGCTCTTG11111A1 2950 CCYGTCYGACTATGCCTTCTTTGTAGCATATAGGTGTTTGCTCTTGTTTTATC 3301 AAAAATGGATATTATTAGAAATTAGAAAAAATTACTAAITITACACATTAGATTTAAT 3190 TTACTATTGGAATCTGATATACTGTGTGCTTTGTTTTATAAAATTTTGCTTTTAATT 2230 ATTOCTOGAGGGAACATOTATATTTCACCCCTGAAGAGTCCATATAAAATTTGAGAAGG 3010 TAATITATATGTATITITITITAATITAACAIGAACACCCITAGAAAAIGTGTATGT 3241 APCTITOCAAATGGAATTIFGATTGGGGGATTGACCAAAATTATCCTGAAGTGTTGTGC q d G g 5 Š q ó ò ò q

3421 AAAAGCTOGAAGCAAAGTATAACCATACTATCATACTACTGCTGAAACAGATTTCATA 3480

```
=
                                                                                                                                                                                                                      9
                                                                                                 90
                                                                                                                                  ŝ
                                                                                                                                                            a
                                                                                                                                                                                           ç
                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                               â
                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                       90
                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -`
                                        448] CCTCASAATGTAAAAGGAACTTACTGATTATTTCFTCGAACTTATGTFTTAAAFGA 3540
          1250 AAAAGCTGJAAGTAAAGTAIAAKSCATATGATACTATCATACTACTACTACTACAAACAGATTCATA 3309
                                                       6; Indels 177; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ITILE OF INVENTION: MODIFIED RELINOBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89.5%; Score 3180.4; DB 10; Longth 3377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: TBM PC compatible oPERATIN; SYSTEM: PC DOS/MS DOS SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ALDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PEGISIRALION NUMBER: 41,071
                                                                                                                                                                                                                                                                Bu, Shi Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 22:Dec 1999
CLASSIFICALON: + Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                   Sequence 46, Application USZ03469522
Fatent No. USZ0020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FELEPHONE: 512/418-3000
FELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 347 base pairs
TYPE: nucleic acid

    Unknown.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                   STREET: P.O. BOX 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hibler, Layid W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: simple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94.98;
                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                APPLICANT: Xa. Hong Ji
                                                                                                                                                                                                                                                                                             Zhou, Yuuli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FoPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 471; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           77210 4444
                                                                                                4541 GGATTATTGATAGE 3554
                                                                                                                             4370 GGALLALIGALAGI 3384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SES
                                                                                                                                                                                                                                                                                                                                                                                                  'IIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
                                                                                                                                                                                        US 494 469 522 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US 09 469 522 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      July Match
                                                                                                                                                                       PESULT 12
                                         5
                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ê
```

```
961 AAACGATACGAAGAAATTTATCTTAAAAATAAAGAFCTAGATGGAAGATTATTTGGAT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021 CATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAACACACAA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       081 AAAAGTAACCTIGAIGAAGAGGIGAAIGIAAITCCICCACACACACTCCAAHTAAAAACTGIT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1141 ATGAACACTATCCAACAATTAATGATGATTTTAAATTCAGGAAGTGATGAAATTCAGAA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  964 ATGAACACTATGCAACAATTAATGATGATTTTAAATTCAGGAAGTGATGAACTTCAGAA 1023
                          961 GAGCTACAGAAAACAIAGAAATCAGTGTCTAAAAITCTTTAACTTACTAAAAAATT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421 GATACCAGTACCAAAGTTGATAATGTCAAAACTGTTGAAGAAGTATGATG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481 TTTGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTTATATATTTGACACAACCAGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181 ITTGGACTCTTCAGCAAALTGGAAAGGACALGTGAACTTATALALLGACACAAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541 AGTICGATATCIACIGAAAIAAAIICIGCAIIGGIGCIAAAAAGIIICIIGGAIGAAAIII 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601 TTATTAGCTAAAGGGGAAGTATTAGAAATGGAAGATGATGGTGAFTTOATTDAGTTA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961 ATGCTAGGGGGGGACIATITATIAAACHCTCACCTCCCALGTGG TCAAAGAACCA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841 AAAGAACAIGAAIGIAAIAIAGAIGAAGIGAAAAAIGITIATITCAAAAAITIIAIAACT 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       664 AAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTTGAAAAFTTTATAGGT 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901 TITATGAATTCTCTCGCACTTGTAACAICTAATGGACTTGCAGAGGTTGAAAATCTTTGT 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      724 TITAIGAATICICITGGACTIGIAACAICIAATGGACITICGAGAGGI FGAAAATCTITC1 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              844 CATGATAAAACTICTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAATACAGA 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                904 AAAAGTAACCTTGATGAAGGTGAATGTAATTCCTCACACACTCCAGGTAAGGTAAGGACTGTT 963
                                                                                                                                                                    001 TGGGGAATCTGTATTTATTGCAGCAGTTGACTAGGTGATATGTGGTTCACTTTTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781 AGGACTGCACGGATAGCAAAACAACTAGAAAATGATAAAAAATTATTGAAGTTCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541 AGTICGAI-----
```

2341 2341 2164	09 2401 ALICINGAGAMACATUTA  DD 2224 ATTCCTGGAGGGAGATCTA  O9 2461 CTGCCAACACCAACAAAATT  DD 2284 CTGCCAACACAAAAATT	0y   2521   HONDORACHICHGAGAAGHG	264i 2464 2464 270i	2524 2761 2584	2821 2644 2881 2704	Oy 2941 GTTTGGGTGATTCCTAAGCC 	Oy 3061 AATGGTGTGTGTTTATGGAT 	Oy 3181 TAATTATAGGGAATTTTT	Oy 3301 AAAAATGGATATTATTAGAA 
1824 AAICHGALLIGCLATITTAACAACTGCACAGTGAATCCAAAAGAAAGTAFACTGAAAGA 1083 125 ALGAAGAALAAGAALACAGTTTAAAGAAAATTTGCTAAAGCTGTGGGACAGGGTTGT 1320 126 ALGAAAGAALALHILLILLILLILLILLILLILLILLILLILLILLILLIL	1321 SICGAAALIGGAICACAGGAAACTICGAGTICGCTICTATTACCGAGTAATGGAA 1380 1144 SICGAAALIGGAICACAGGAAACTICGAGTICGCTICTATIACCGAGTAATGGAA 1280 1144 SICGAAALIGGAICACAGAAACTIGGAGTICGCTICTATIACCGAGTAATGGAA 1203 1481 CCATGITTAAATCAGAAAGAAGAATTATCCATTCAAAATTTAGCAAACTTCTGAAT 1440	-	1324 AGGAGAATACA CORGAAA COOLAGAACAACAACAACAACAACAACAACAACAACAACAACAA		1741 CGAGAGGACCAACTGAICACCTTGAATTTGTTGTTTTTTTTTT	1861 ACTAGGGGGGGGAAATCTACTGCAAATGCAGAGCAACCTCAGCCTTCCAGACC 1920 HTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHT	TATCLOGGCTAMATAPACTITOTGAMOGCTTCTGTCTGAGGACCGGAMTTAGAAGAT TATCLOGGCTAMATAPACTITOTGAGAGGCTTCTGTGTGAGGACCCAGAATTAGAAGAT ATCTGGGGCTAMATAFACTTTGTGAAGGCCTTCTGTGTGTGGGCCCCAGAATTAGAACAT ATCATTGGGGCTTTCTGTGAAGGCTTCTGTGGAGGCCCAGAAGAGATTAGAACAGAAGAAGAATAGAAGAAGAAGAAGAAGAAGAAGAAGAAG	**************************************	I CAAA' GIGTI I IGALGAAGAAGAGGGIATGATTCIALFALAGIATCTATAACTCG 

```
GEACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAATGA 2520
                                                                                                                                                                                                                                                                TITCCTCCAAGCCCTTACAAGTTTCCTAGTTTCAGCCTTACGG 2400
                                                                                                               AIATTTCACCCTGAAGAGICCATATAAAA1TICAGAAGGI 2450
                                                                                                                                                                                                                                                                                                                GAAGCAACCTCCTAAACCACTGAAAAACTACGCTTTGAT 2640
                                                                                                                                                                                                                                                                                                                                  CTTCAGGTGTTTTTGTGGATATAAAATGTGCAGALGCAATT 2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACIIGAAAIGIIAGICATIGIIATIIAIACAAGAITGAAA 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ITIAATITAACAIGAACACCCTIAGAAAATGIGIGGATAIGI 3240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATTAGAAAAAATTACTAATTTTAGAGATTAGATTTATT 3183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IGACICCAAGALCAAGAAICIIAGIALCAAIIGGIGAAICA 2343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAGTAAGAATGGGGGTAGAGTGGGAGIAAIGAAAGGGAGG 3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TICITITGIAGCATATAGGIGAIGITIGCICTIGITITIAL 3180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITAATITAACATGAACACCCITAGAAAATGIGTGCTAICI +063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTGACTGCCCATICACCAAAAITATCCTGAACICHTCTGC 3123
                                                                                                                                  HCCACAAAATAAATCAGATGGTATGTAACAGGGACGTGTG
                                                                                                                                                                                                                                                                                                                                                                                               ATIIAAAAAGIIGIAGCAGAIIGIIIGCICCICCICCAAAGIAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTTAAAAAGTTGTAGCAGATTGTTTGCTTGTTGCTAAAGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTGACTGCCCATTCACCAAAATTATCCTGAACTCTTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATTAGAAAAAATTACTAATTTTACACATTAGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ANGAANAGAATGAGGATCICAGGACCTIGGIGGACACIGI
                                                                                                                                                                                                                                                                                                                                                                                                                                               CITCTACTCGAACACGAATGCAAAAGCAGAAAATGAATGAT
```

us-09-026-459a-50.rnpb

```
90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                         43
                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ΟŽ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                   ò
                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      --
                                                                                                                                                                                                                                                            1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 11
1184 TIACIAH GGAALGIGATATACIGIGIGIGI HITATAAAATITIGCI HITAATIAAAT 3243
                                                                                                                                                                                                                     4481 PPTPAGAPISTAAAAGAAPITACITGATIATITAGTICAACHTAAATGA 3540
                                                                                                                                           4244 AAAAGGTGBAAGCAAABTAFAAGGATATGATAGTATGATACTAGTGAAAGAATTTGATA 3503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Indels 207; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44.2.1. AAAAN SIIS SIAAN SIAAAN IZATAAN SIATATAATAA TAA LAA LAA SIAAN SAAAN SAASA SI ETOATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TILLE OF INVENTION: MODIFIED RELINOBLASIOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 10; Length 3347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMITWARE: Parentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88.0%; Score 4126.8;
94.1%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCEZDORKET NUMBER: UTXC:506
TELECHMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC COMPATIBLE OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: 7..2584
SEQUENCE DESCRIPTION: SEQ ID NO: 42:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Hibler, bavid W. RETISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: ZZ Dec-1999
CLASSIFICATION: + Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hu, Shi Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 42, Application US/09469522
Fatent No. USZ0020151461A1
GENERAL (NFORMALION)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 512/418 3000
TELEPAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGIE: 1447 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRATEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO. 42: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 77210-44-69
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Xo., Honq Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PoPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 4345; Conservative
                                                                                                                                                                                                                                                                                                                                                                     3541 GOATTATTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                          3364 GGALLALIGALAGE 3377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAMEZKEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESHLT 13
US 09 469 522 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   38 91 469 522 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ourer y Materia
                                                                                                                                                                                                                                                                                       î
                                                                                                                                                                                                                                                                                                                                                                        ŝ
```

```
1081 AAAAGTAACCTTGATGAAGAGCTGAATGTAATTCCTCCNCNCNCTGGAGTTAGGACTGTT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961 AAACGATACGAAGAATTTATGTTAAAATAAAGATGTAGATGCAAGATTATFLFFGGAT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .021 CATGATAAAACTCTTCAGACTGATCTATAGACAGITTIGAAACACACAGAGAACACGACGA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141 ATGAGGGTATGGAACAATTAATGATGATTTTAAATTGAGAAGGTGAAGGTLGAGAA 1200
                                                                                                                                                                                                                                                                                                                              42] GATACCAGIASCAAAGIIGAIAAIGCIAIGISAAGAATGIIGAAGAAGIAIGAALIG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661 ATGCTATGTSTGGTTGAYTATTTATAAAGTGTGAGGTGGGATGTTGYTGAAAGAAYSA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721 TATAAAACAGTGITATACCCATTAATGGITCACCTCGAACACCAGGCGAAGTCAGAAC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781 AGGAGTGCAGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTLTCTTGT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       574 AGGAGTGCACGGATAGCAAAACAACTAGAAATGATACAAGAATTATTGAAGTTGTGTGT 6++
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841 AAAGAACATGAATGIAAIAIAAGAIGAGAGAGAAAAIGITIATITCAAAAAITIIAIAACT 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901 TITATGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAATCTTTCT 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               754 AAACGATACGAAGAAATTTAFCTIAAAAATAAAGATCTAGATGATGATTATTTGGAT 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               874 AAAAGIAACCTIGAAGAGGIGAAIGIAAATICCICCACACACICCAGITAAGII 934
                    44]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.9.1 TTTGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTTATATATTTGACACAAAACGAAG 54.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       342 -----ATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTGGTGGATCACATTT +94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601 TTATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGTATGGGGGATT77ATTLCAGTTA 660
                                                                                                           801 TGGGGAAICTGIAICTITATTGCAGCAGTTGACCIAGGGAIAIAIGIGGIICA TTTTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41 AGTICGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTICTTGGALCACATTT
```

2014 1	2281 0	2341 ]	2134	2401 4	2194 7	2461	2254 (	77.0	2 C	2374 (	2641 4	2434	2701 (	2494	2761 4	2554 7	2821 (	2614 (	2 H H Z	2674 1	2941	2734	3001 4	2794	3061 2	2854 #	3121	2914	3181	2974	3241 7	3301 4	3094 #
qq	Q.Y	Ŝ	0.0	ολ	qq	δŏ	d :	5 . ź	3 3	. q	$\Omega \mathbf{y}$	g	Qy	QO	Oy	Db	οy	qo .	Ç	q <sub>C</sub>	ŏ	q	ΟŊ	οp	ογ	QQ	ζλ	qq	οy	q	ò 6	ογ	· 40
			,			-			. <u>.</u>																								
993	<u>ت</u>	1053	1320		1173	1440	1233	1500	1293	1560	1620	• -	œ	_	1740	50	1800	1593	1860	1653	1920	1713	1980	1773	2040	1833		1893	2160	1953	2220	2013	2280
TCAGAA	AAGA 	AAGA	11011	13.53 A	- W	GAAT	GAAT	ATAT	ATAT	1016	ACCA	AGCA AGCA	CATG	CATG	GGAC		GAAT	  GAA:I	TTCA	TTCA	GACC	EACC	AGGC	HHH AGCC	ACAT	ACA I	(*Ac3c)	CA66	AGAC	HIIII AGAC	GACA	GACA	CICG
DITON	ACTICAA	ACTGA?	V: <b>A</b> 0366 	LAATEN	STAAT	VCTTC1	NCTICI	SGCCAC	GCCAC	VIGGAI	ALC: ALC: A	ATCAP	regaat	CCAAT	NTCANA	HIIII VICAAA	CICCA	CTCCA	VAAAGG	AAAGG	TICON		1.0000.	CGGCT	VITAGA	TTAGA	AGAGA:	NGAGA	AATAT	AATAT	TTTCAGGAGACA	CAGGA	TATAA
HILL	AGTA17	AGTAT/	700015 795545	I Activity	INC.67	AGCAA/	NGCAA	STAAT(	STAATO	TICCC7		AGITI	BAACAT	SAACAT	NAACA	MAACAZ	CHICCH		NAGAN	AAGAA/	LCAGIC		STGTAT	STGTAT	CAGAZ		TCATE	HIIII MATE	BIGAAC	TGAAG	TIBLU	SCTGTT	TATT
		AAGAA	: FERMAN WATATAGAATAYATIOTTTAAAARAYAAATTTGCTAAARATERSEAGAYAGSSTEGT 	TGTAT	RANTIGORION NECENTRANDANT TO SENTE STATING CONSTANTED IN	ATTT	TSCATGSTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGCAAACTTCTGAAT	ACAACATTTTCATATGCTTTATTGGCGCGCTCTTGAGGTTGTAATGGCCACATAT	AGG117	SCANIAN TACATCT CASAATCTTGATTCTGGAACAGATTGTCTTTCCCATGGATCTG CALIANCTACATCTTCTTTTTTTTTTTTTTTTTTTTTTTTTTT	TOTA	AAFGIS TIAAIITAAAASCTITAAAATTITACAAAGIGATGAAGGAAAGITITATGAAAGGA	GATGT	TTAGAACGATGTGAACATGGATGATG	ITAII	HITTELLE HELLE HEL	TTAAL	O THE FER THE	CTCCA	AATGAYACTGCAADAAAATTTTCTCTCTGTAAGATCTCCAAAGAAAAAGGTTCA	CAACC	ACTA SPORTED PER PETENTANDA PANANGA CARANGCA ANG CARANG TORANG CARANG CA	AAAAA		AGCAC	: AT CONTROL OF THE FIRST OF THE STANDARD OF T	ATGAAG	ESTETRA PER PETER	GCAAA		TIAAATTECAAAATECATTETAAGAGGATACAAGGAAGTTTGGTGGTGGTGTGT	CTCATE	A'STGITIGAICAAAAAAGAGGGGTAIGAITCIAIIATAGIATGIAIAGICG
HILL	TCCAA	TCCAA		TOSET	TOGGI	TCAAA	TCAAA	TCTTG	- <u>-</u>	AGATT	ACTOA	   AGTGA	AGAAC	AGAAC	TGAIC		TOCTO	HELL	AAGAT	AAGAT	ACAAG		TTATA	TTATA	GICIG	GICTG	TGAGT	TGAGT	CATAT	CATAT	TCITO	TCTTC	TTCTA
TTAN	4515A	NGTGA/	:AAAT:  - - - -  - - - - -	Listati	[] [] [] [] [] [] [] [] [] [] [] [] [] [	ATCCAT	NTCCAT	TGCGC	200015	DGGAAC	TACAA	TACA	ACATIT	ACATET	HTATI		GCTTC		recie	00101	NGAGAC	N:AGAS	ACTIGITY	NCTGIT	CIICI		AC AGAP	CAGAN	TAIG	TATGG	AAGGA	AAGGA	STATGA
ATGAT	FGCAC	IGCAC!	AAAGAC   	AAA(TT	TAAA'TI	3GATT7	GATT/	ITGGC	TTGGG	SATTC		ATTT	NTAAA	11111	rcacci	ICACCI	SAATO	SAATCE	TITE		AATGCZ		ZTTTC	HILL	SAACG		MOUGLE		ICCAIC	CCAT	CATAC	SCATAC	3AGGAC
	ACAAC 	ACAAC		CATAC	1111 :ATAC	AAGAA	AAGAA	CTTTA	- K   I   J	ATCTT		Ē	AAATG	AAATG	CAGAT	CAGAI	ACCITE	ACCIT	TGTAT	101 AT	TIGGA	11111	CCTCTK		TITGE	= <u>1</u> 5	NGCACI	HIIII AGCACA	Herer	rerer	FAACA	PAACA(	NAGAA(
 	A	TITIA	ATACA               A   A CA	ACAGO	×	AGAAG	NGAAG.	TATGT	٥ ٧	TCAGA	AAAAG	AAAAG	AAGAG	AAGAG	GCTCT		TGAIC	TGATC	AGATA	ACALA	TICIA	TECTA	ATCTA	ATCITA	TACAC	   ACAC	TTTCC		IAIGA	TATGA	CATES	CALIG	GATCA
ATCCA	1001A11	TCCIA	ATAGG 	GGATC	GGATC	AAATC	AAATC	TITCA	I I CA	ACATC	AATII	AAIIT	TIGAC		GCATG	GCAIG	CCAAC	CCAAC	GCAGC	00 <b>A</b> 00	GIAAA	STAAA	TTGAA	TIGAA	CIAAA	CIAAA	ACCCT	ACCCT	CAAAT	CAAAT	AAAAT	AAAAT	GIIII
I I I I I I I I	- O	HGALI	\AGGAT  - - -  \AGGAT	TENARATE	AAATT	NIGGET.	MGCH	VAYATT	AACALI	11.4.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	THE CALL		SHICAAC	GAAGGCAACTIGACAAGAGAATGATATTTTTTTTT	III.		TAAGGA		ACACT	ACACI	v)GCGT		AAGGCA	AGGAA	700.4	000001	VICTOR	1016	.A. O.	TGGAC	MATTC	VAALTC	Totanage Titititi
K	∢				Ē	4001		1.3AC		< - <	ে ব		:VAN:		1 SAAT		ACIAC. I		1 AAT		1 A.TA		. AGA		I IAI		1 AICA	- <	•	•	. –		7.7.
5 5 7	1201	466	1.154			ž.	1174	7 + + 1	1.234	1501		. j	16.24	1414	16.81	1474	1.	1534	180	1594	1861	16.54	1921	स्य १ १	1381	1774	2041		7	76.97	<u> </u>	1954	222
÷	5	ž	हें। इं	12-	1. 1.	$\frac{1}{2}$	Ė	, * J	ž	ŝ ŝ	1	i	ž. Ž	: <u>\$</u>	5	ą	5	40	ŝ	ž	ŝ	134	ζÞ	ą.	ş	ź	Ś	i	I.	÷	Š	â	Ş

OFFIT CATGOAGAGAGTSAAAAGAAATAT TTIGGAGTATGGT FOCACGAGGGFTSFTAG. 2340 TIGICAPGAATAPGIGAZAIFSGI SSAASPSSIIASAAGIITOSTAGIIGASPPITAGG 2400 ATTOCTOGAGGAACATCTAIALTTCACCCTGAAGAGTCCATATAAAATTTTCAGAAGGT 2460 TTCAAACGIGTTTTGATCAAAGAGAGGGAGTATGATTCTATTATAGTATTCTATAACTCG 2073 CHOCCAACACAAAAAATGACTCCAACATCAAGAATCTTAGTATGAATTGGTGATGA 2313 IICGGGANT PTEAGAAGIINTAGAAAAIAAAIAAAFOAGAIAHAFGTAAAMAGCGACCGIGIG 2580 ATCTTGTGTGTAAFCGTGCGATTTAAAAAGTTGTAGCAGATTGTTTGCTGTTTGCAAAGTAA 2853 AAIIGCIGIGCIITAIGGAIAGIAAGAAIGGCCCIAGAGIGCGGAGICCIGAIAACCCAGG 3120 AATTGCTCTCTTTATCCATAGTACAATGGCCCTAGAGTGGGAGTCCTGATAACCCAGG 2913 FAATITALA IGTALATITITITAATTI AACATGAACACCCI FAGAAAATGI GIOOLA JOL. 3240 ATCT/PCCAAATGCAATTTGATTGACTGCCCATTCACCAAAATTATCCTGAACTCTTGTGC 3093 AAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTACACATTAGATTTATT 3350 94 AAAAATGGATATTATAGAAATTAGAAAAAAAATTACTAATTTTACACTITAGACTAGTTTTATT 3153 CTGCCAACACCAACAAAAATGACTGCAAGATCAAGAATCTTAGTATGAATTGGTGAATGA ATITICA A GATICA GATICA GA GA GA GA GA GA GA TOTOCO A GO GA GA GA TITI O A GA TITI O A GA TITI O A GA TITI O A CAGAAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAAGCAGAAAATGAT GTACACCT CHGGANT PATTOTOTOTO AGATGTGACTGTALAACTTTCCCAGGTTCTGT GITTGGGTGATTGTAAGGGACTTGAAATGTTAGTCATTGTTATTATATACAAGATTGAAA CTCAAAAGAAGTGGTGAAGGAAGGAAGGTGGTAAACCAGTGAAAAAAAGTACCTTTGAT <u>AGCATGGAPPGCPPCAACAAGGAAGAGAGAAPPGAGGATGTGAGGAGGTTTGGTGGGGGAGACTGT</u> ATCTTCCAAATGCAATTTGATTGACTGCCCATTCACCAAAATTATCCTGAAATTTTCTGC COTGTOTGACTACTTTCCTTTTTTTTTTTTTAIAGGIGATGTTTGCTCTTGTTTTTA 

807

```
1168 AITIIAAAITGAGGAGGALGAAGHICAGAAAAICIGAHTIGHIHIAACAAGHGC 1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1288 GAGAAATTTGCTAAAGCTGTGGGACAAGGGTTGTGTGGAAATTGGATCACAGCGATACAAA 1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1348 CTTGGAGTTCGCTTGTATTACCGGAGTAATGGAATCCATGCTTAAATCAGAAGAAGAAGAA 1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1408 TTATCCATTCAAAATTTTAGCAAACTTCTGAATGACAAALTTTTCALALGIGITTAALTG 1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1468 GCGTGCGCTCTTGAGGTTGTAATGGCCACATATAGCAGAAGTACATGTCAGAATCTTGAT 1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1528 TCTGGAACAGATITGTCTTTGCCAIGGAIPCTGAAIGIGCTIAATIIAAAAGCCTTTGAT 1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        988 AATAAAGATCTAGATGCAAGATTATTTTTTGGATCATGATAAAAACTCTTCAGACTGATTTT 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  048 ATAGACAGI FTTGAAACACAGAGAAACACCACGAAAAGTAAACTTTGA FGAGAGG FGAAT 1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1108 STAATTOTOTOTOTOTOTOTOTOTOTOTOTOTOTATGAACACTATCCAACAATTAATGATG 1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    228 ACAGTGAATPCAAAAGAAAGTATATTGAAAAGATIGAAGGATATAGGATATAGGTATATTTAAA 1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 727 ATTTTAAATTCAGCAAGTGATCAACCTTCAGAAAATCTGATTTTTAATTTAACAGTGGT 786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         787 ACAGTGAATGGAAAAGAAAGTATAGTGAAAAGAGTGTGAAGATATAGATAGATATAAA 846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   508 ACATGTGAACTTATATATGACACAACGAGGGGGTGGATATCTATTGAAATAATTGT 967
                                                                          568 GCATTGGTGCTAAAAGTITCTTGGATCACATTTITATTAGGTAAAGGGGAGAAGTATTACAA 6.27
                                                                                                                                       688 AAACTETCACCTCCCATCTTCCAAGAACCATATAAAACACTGTTATAAF 747
                                                                                                                                                                                                                                                                                                              247 AAACTCTCACCTCCCATGTTGCTCAAAGAACGATATAAAACAGGTG1TATACCCATAAT 305
                                                                                                                                                                                                                                                                                                                                                                                        808 GAAAATGATACAAGAATTATTGAAGTTCTCTCTAAAGAACATGATAATATAGATGA 867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             368 GTGAAAAATGTTTATLTGAAAATITTATAGCTTTTATGAATLCTGTTTGGACTTGTAAGA 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    928 TCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATACGAAAATITATCTTAAA 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             547 AATAAAGATCTAGATGCAAGATTATTTTTGGATCATGATAAAACTCTTCAGACTGATTCT 606
7 ATGTCAAGACTGTTGAAGAAGTATGATGTTTGCACTCTTCACCAAATTGCAAAAGG 66
                                                                                                                                                                                                                   748 GGTTCACCTCGAACACCCAGGCGAGGTCAGAACAGGAGTGCACAGGATAGCAAAACAAAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                 ŝ
                                                                                                                                                      90
                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                        40
                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                         Š
                                                                          a
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ·.
4421 AAAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACTACTACTGAAACAGATTTCATA 3480
                                                                                                                                                    4481 OMICAGAATGTAAAAGAACTTACTGAFTATETTECTICAACTTATGTTTTAAATGA 3540
                                                                                                                                                                        4214 AAAAGCI GGAAGGAAGI AI AACCATATGATACTATCATACGAGAAACAGATTCATA 3273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zhon, Punti
1111.E of INVENTION: MODIFIED REFINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87.4%; Score 3107; DB 10; Length 3113;
100.0%; Fred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKEL NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IHM PC compatible
OPEKALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EQUATION: 7..2349
SEQUENCE DESCRIPTION: SEQ ID NO: 36:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA: APPLICATION NOMBER: 09/026.455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILLING DATE: 22-Dec-1999
CLASSIFICATION: cUnknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bu, Shi Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                 Sugmence 36, Application #SZ39469522
Parent No. #SZ0020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 512/418 3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 4114 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             · Unknown ›
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET; P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMALION FOR SECTION NOT 35: SECUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IYPE: uneleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu., Hone Ji.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FoPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 4107: Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77210 4433
                                                                                                                                                                                                                                                         5541 GGATTATTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US 09 469 522-36
                                                                                                                                                                                                                                                                                                                              RESULT 14
US 09 469 522 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
                                                                                                             â
                                                                                                                                                        Š
                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                  5
```

448 ATGTCAAGACTGTTGAAGAAGTATGATGTATTGTTTGCACTCTTCAGGAAATTGGAAAGG 507

5

1111 111 111 111 111 111 111 111 111 1	114 164 120	P. 0	32	m m	(Y) ++	15	20	20 16	21 16	21	22	2307 1866	23	24 19	24 20	25	260 216	3555 3555
14	SSAACASATTIGICTITCCCALOSAITCIGAAIGIGSCTAALITAAAAGCCTTT LACAAAGIGALGGAAAGITTIAICAAAGCACAAGGAACTIGACAAGGAAATC FILLELLIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	APATITAGAAGATGTGAAZALGAATGAATGGAATCCTTGGATTGGTTGGCTCTCAGATTCA 	TELLATE GALCEPATTAAACATCAAAGGACCGAGAAGGACCAACTGATGACTTGAA ELLATELLATELLTITTTTTTTTTTTTTTTTTTTTTTTTT	TIGNIERICCICTEMATORICCICCAGAAFAAFCACACACACAGAATATGTAFCTT FEEFEERELEELEELEELEELEELEELEELEELEELEELEELEE	TECTGFAGAGATCTCCAAAGAAAAAGGTTCAACFACGGGTGFAAATTCFACTGCAAAT 	AGAGAPACAAUCAACCICAGCCIPCAGACCCAGAAGCATTGAAATCIACCIGICTT 	ACTOTTTTATAAAAAOTGTATOOGGTAGCCTATCTCGGGCTAAATACACTTTGTGAA FELLITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	POTTETETETCHAGGACGCGGAATTAGAAGATATCATCTGGACGGTTTGCGAGAGAGC 	GCACAA EGACUATEGAAAFEA AGACAAAA GGGATTTTGGACGAAATTTATGATGTCTTTGC 	$\overline{c}_{2} = \overline{c}_{2}$	WPAGGAECTECTCATGCTGTTCAGGAGACATTCAAAGBESTTTGATAAGAAGAG TELLETELETELETELETELETELETELETELETELETE	WITALGATICTATIALAGIATICTATAACIGGGICTICATGCAGAGACGGAAACAAT TELETILITITITITITITITITITITITITITITITITI	THOPAGIA PROTITIONACE ACCORDICE TO TRACEACA ATACCTCA CATTOCT CACA THE FILL HILL HILL HILL HILL HILL HILL HILL	POPULTAVAAGITICOTAGITCAGCCITAGGGATICOTGGAGGGAACATGIATATTGA 	GAAGAGTCCAFATAAAAT FILLLELLELLITITI GAAGAGTCCAFAAAAT	ALCABBATCTTACTACTATOCATOCOTCATCCOCGGGACTTCTGAGAAGTTCCGAAA 	ANATCAGATGGTATGTAGAGAGGGCGGGGGGGGGGGAAAGAAGAAGGAAG	TUCCEAAACCACTGAAAAAACEACACTTTGATATTTGAAGATGATGAATGGA TUUTUU UU
	~ Y. F.	548 207	* *	76.8 827	828 187	инд 447		508 567	TO F	1.2 H	88 +	· .	т.	Ŧ ~	¥ ~	x ~	548	¥ [2

```
2848 CAGATGTGACTGTATAACTIICCCAGGTICIGIIIAIGGGCACATIIAAIAICIICAGGT 2997
                                                                                                                                                                                                                                                                                                                                                                2407 CAGATOTOACTOTATATATOTOAGOTOTOTOTATATOCOAGATTAALATOTOAGOG 2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2587 AGLIGIAGCAGATTGTTTCCTCTTCCAAAGTAAAATTGCTGTGCTTTATGGALAGIAAGA 264{
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2287 FGAAGAFGAATGFAAAAGFAGAAAATGAATGATAGFAGATAGGTGAAAQAAGGAGAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                              2968 OTTITTGIGGATATAAAATGIGGAGAGATGITTGGGIGATGCIAAGCCIAAGCCACTIGAA 2967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2968 ATCTTAGTCATTCTTATTTATACAAGATTGAAAATCTTGTGAAATCCTGCCALLFAAAA 3E27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2527 ATGTIAGTCATTGTTATTACAAGATTGAAAATCITGTGTAAATCCTGCCATTTAAAA 2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3088 ATGATOTIAGAGIGGGAGICTISAIAACCCASSCCISICIGACIACTIGGCHICHHG 3147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3208 AACAIGAACACCCIIAGAAAAIGIGICCIAICIATCIICCAAAIGCAAITIGAIIGACIG 3267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2767 AACATGAACACCOTTAGAAAATGTGTGCTATGTATGTTGCAAATGGAATTTGALTGACTG 2826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3268 COCATTCACCAAAATTAFCCEGAACTCTTCTGCAAAAATGGATATTATTAGAAATTAGAA 3327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3388 GCTTGTTTTATAAAATTTTGCTTTTAATTAAATAAAAGGTGGAAGCAAAGTATAACGTA 3447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3007 IGATACIATCALACIACIACIGAAACAGAIIICALACCICAGAATGIAAAAGAACIIACIGAI 3065
                                                                                                                                                                                                                        3028 AGTIGTAGCAGATTGTTTCCFCITCCAAAGIAAAATIGCTGTGCTTTATGGATAGTAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2947 GCTTGTTTTTTATAAAATTTTGCTTTTTAALTAAAAGCTGGAAGCAAAGTATAACCATA
2668 ASIAAACAICICCOAGGAGAGTCCAAATTTCAGCAGAAACTGGCAGAAATGACTTCIACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2887 AAAAATTACTAATTTTACACAITASAITITATITIACIAIGGAAACAGAAAAAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3448 IGATACIATCAIACIACIGAAACAGATITCATACCICAGAATGTAAAAGAACITACIGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3328 AAAAATTACTAATTTTACACATTAGATTTTATITTACTATTGGAAICTGAIATAGIGIG:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Recombinant Adenoviral Vector and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3508 TATTTTCTTCATCCAACTTATGTTTTAAATGAGGATTATTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3067 IAITTECTECALCCAACTIAIGTITITAAAIGAGGATIATIGATAGT 3113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Gregory, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Daniel C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 7, Application US/09860211
Patent No. US20020137212Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Maneval,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 15
US-09-860-211-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
.
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62 AACTOROGOACOTOCOCOTOCOCOCOTOCOCAGAGGACCAGAGGACAGGCCC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122 COGAGGACCIGCCICCICCICCAGCTIGACITICAACAAAACAGAACCTGATITIACTG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    254 CGGAGGACCTGCCTCTCGTCAGGCTTGAGTTTTGAAGAAACAGAAACCTGATTTTACTG 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            182 CALLALGICAGAAALLAAAGAJACCAGAICALGICAGAGAGAGAGCITGGITAACTIGGG 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        242 AGAAAGILICAECEGEGEGGAGATEGGGAGGITATATECAAAAGAAAAAGGAACEGT 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  802 90805AATCTGTATTTATTGCAGCAGTGACCTAGGTGATAIGICGIICACIIITACTG 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80.4%; Score 2853.2; DB 10; Length 2995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3; Indels
                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.30
                   ADDRESSEE: Lownsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: /product-"RB" /Lote-"retinoblastoma tumor suppressor"
SEQUENCE DESCRIPTION: SEQ ID NO: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   016340 000920US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 15 FEB+2000
APPLICATION NUMBER: US 08/142,669
                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/860,211
                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 08/233,669
FILING DATE: 26-APR-1994
                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US UB/328,673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. 0;
                                                                                                                                                                                                       OPERATING SYSTEM: POSTOS/MS DOS
                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35, 467
                                                                                                                                                                                                                                                                                           FILING DATE: 18-May-2001
CLASSIFICATION: *Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                     16.61 - L. H. 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IELEFAX: (415) 575 0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             timothy s.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALTORNEY/AGENT INFORMALTON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   í,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           139...2925
                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SHOUENCE CHARACIERISTICS:
                                                           CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PEGISTRALFON NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMALLON FOR SEQ ID NO. 7:
                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             186, 6,6,
                                                                                                                                             COMPUTER READABLE FORM:
CORRESPONDENCE ADDRESS:
                                                                               STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: Finedr
MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 2855; Conservative
                                                                                                     COUNTRY: USA
ZIP: 94111 3834
                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Smith,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US U9 860 211 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Juery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             :
-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      =
```

```
1214 AAAGTAACCTTGATGAAGAGGTGAATGTAGTTCTTCCACACACTCCAGTTAGGACTGTTA 1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1394 TGAAGGATATAGGATACTTTAAAGASAAATTTGCTAAAGCTGFGSGACAGGGTGTG 1453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   974 AAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTATTTGAAAAATTTTATACCTT 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1034 TTATGAATTCTCTTGGACTTGTAACATCTAALGGACTTCCAGAGGTGGAAATCTTTCTA 1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1094 AACGATACGAAGAATTTALCTTAAAAATAAAGATCTAGAAGATTATTTTTGGATC 1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1022 ATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAGACACCAA 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1142 TGAAGACTATGGAACATTAATGATGATTITAAATTCAG AAGTGAT AAG THUAGAAA 1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1274 TGAACACTATCCAACAATTAATGATGATTTAAATTCAGTAAGTGATTAAGTTTTAGAAA 1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1262 TCAACCATATACCATACATCTTTAAAGAGAAATTTGCTAAAGCTGTGGGACAGGGTTGTG 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1322 TCGAAATTGGATCACAGCGATACAAACTTGGAGTTCGCTTGTATTACCGAGTAA1GGAAT 1+H1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1382 CCATGCTTAAATCAGAAGAAGAAGATTATGATTCAAAATTTTAGCAAATTGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1514 CCATGCTTAAATCAGAAGAACGATTATCCATTCAAAATTTTAGCAACTTCTGAATG 1574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1442 ACAACATHTHCATAIGECLIFATIGGCGIGGGCTCTIGAGGLIGIAALGGCCACATATA 1501
                                           494 AGCTACAGAAAAACATAGAAATCAGTGTGCATAAATTGTTTAACTTACTAAAAGAAAATTG 553
                                                                                    122 ATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTATGTGTTGT 481
                                                                                                             614 IIGCACICIICAGCAAAIIGGAAAGGACAIGIGAACIIAIAITIGACACAAAACA 673
                                                                                                                                                                                                                                                         542 CTTCCATATCTACAAATAAATTCTCCATTGGTCTTAAAAGTTTCTTGGATCACATTT 601
                                                                                                                                                                                                                                                                                                         674 SITCGATATCIACTGAAATAAAITCTGCAIIGGGGCTIAAAAGHIICHGGAALAACATTTT 733
                                                                                                                                                                                                                                                                                                                                                                         722 ATAAAACAGFIGITATAGGCATTAATGGTTGACCTGGAACAGCAGGGAGTAAGAAA 78]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  782 GGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTGTA H41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              482 TEGCACTCTTCAGCAAATTGGAAAGGACAIGTGAACTTATATATTTGACACAAGCA
                                                                                                                                                                                                                                                                                                                                                  602 TATTAGGTAAAGGGGAAAGTAHIACAAAFGGAAAGALGAFGGGTGATTTCAGTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                         662 IGCIAIGIGCITGACIAITITATIAAAQICICOCOAFGIIGGAAGAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  794 IGCIAIGICCIIGACIAIITIAITAAACICICACCICAAIGIIGAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     842 AAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         902 TTATGAALTCTCLFGGACLFGLAACATCTAALGGACTTCCAGAGGTTGAAAALCTLFCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                962 AACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTTGGATC
                                                                                                                                                                                                                                                                                  ò
                                           a
                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ογ
                                                                                      ô
                                                                                                                             a
                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
```

   VIA 1633   CA 1561 	AG 16  -  AG 17	3G 168 	174 187	A 180     A 193	186 199	192 205	198 211	A 217	ige 2101 		AT 2221      AT 2353	CGG 2281      	ACCT 2341 1111 ACCT 2473	ACGGA 2401         ACGGA 2533	nc 2461 11 nc 2593	AT 2521 11 AT 2653	GC 2581
ATGGCCACATA CCCATGGATTCT TILLLITTL	TTTATCAAAGCAG 	TGTGAACATCGAALCATC 	CAATCAAAGG                    CAATCAAAGG	TTAATCTTCCTCTCCAGAAT 	AAAAAAGGIT 	GCCTTCCAGA FITTTTTTT GCCTTCCAGA	AAAAAAGTETATEGGCTAGCT 	GAATTAGAACAT 	ATGAACTCATGAGAGACAGGC 	AAGAATATAG 	9TTCAGGAGA 	AACT 	AGGCCCCTA(	CACCCTT CACCCTT	ATTTCAGAAG ATTTCAGAAG	ATTGGTGAATC 	AGCGACCGTG
ATTCACAGGACATTGAGGTGIAAIGGCCACATAI ATTCACAGGACAGATTGCATGCAAGGCGACATAI TCALLCIGCAACAGATTGCCTTGCCATGCATGCTG HILLHHILLHHILHHILHHILHHILH TGATTCTGGAACAGATTGTCTTTCCCATGGATTCTG	ACAAAGTGATCGAAAGTTTT 	AGAACGATGTGAA  - - - - - - - - - - - - - - - - - -	CTCATATTCACCTTTATTTCATCTTATTAAAAAAUCAAAGACC 		AAGATCTCCAAAGAAAAAGGTTCAA 	ACAAGCAACCTCAGCCTTCCAGAGCC 	5-5	CTGAGCACCCAGAT 	AGTATGAACTO 	TATGCAAAGTGAAGAATAT 	ACAAGATETPOTOATGETGTEGAGGACAT	CTATTATAGE 	ATGCTTCCACCAGGCCCCT.	CITACAAGITICCIAGIT	GTCCALALAAA JIJIBIBIB GTCCATATAAA	JCTTAGTATCA 	TGGTATGTAAC
	H	AAACATTI            AAACAITI	ACCITIATITC 	ATCTGCTTGTCCTC	Tereerer 	NECCAGAGACAC 	TTCACTGTTTTP 	ACACTTGTGAACGCTTCTGF	CCTGCAGAATO	ATGATGTGTTCCATGTATGGCAT.	ATACAAGGATC                ATACAAGGATC	GCAGTATGATT 	JATTITGCAGI 	AAGCCTTACA 	ACCCTGAAGA 	AAGATCAAGAA 	AATAAATCAGA
TITICATATGTOTTATTGT TACATCTCACAATCTTGATT TITITITITITITITITITITITITITITITITITI	AAAGCCTTTG/ FIFELLITT AAAGCCITTG/	AGAGAAATGA  - - - - - - -  AGAGAAATGA	CTCTCAGATTC 	GATCACCTIGA 	GAIAIGIAICII 	AAATTCTACTGCAAATGCAGAGAC 	TCTACCTCTCTTT 	ACACTITGIGA 	TTCCAGCACAC 	ATGATGTGTTC 	ATTGTAACAGCATA 	ATCAAAGAAGA 	CTGAAAACAAA 	CACATTCCTCG 	ALCTATATITC 	AAAATGACTCC 	AAGTTCCAGAA 
AGAAG AGAAG AGAAG	GCTTAATT 	CAACTIGA CLITTII	AALGGTTGGATGGGTG	GAGAAGGCCAACTGATCACCTTGATG FELLELLELLELLELLELLELLELLE GAGAAGGACCAACTGATCACCTTGAATG	TCACACTGCAGCAGAIA  - - - - - - - - - - - - - - - - - - -	ACGCGTGTAAATTTTTTTTTTTTAAAT	GAAGCCATTGAAATCTA 	CTCCGGCTAAAT 	PONTO DE GORDETTIT CON CONTROCACANTANTE EN ENTRE ENTRE EN ENTRE EN ENTRE ENTRE ENTRE ENTRE ENTRE ENTRE ENTRE EN ENTRE EN	FTTGGACCAAATTA FILLFILLIIIII FILGGAGGAAATTA	FAAATTCAAAATCAT 	CAAARGIGIIIGATCAAAQAAGAGGAGTATGATCTATTATAGTATTCTAT 	OTTCATATAGAGACTGAAAACAAATATTTGGGGT. 	GTCACYATACCTCACATTCCTCGAAGCCC FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	CCTRAGGGACATCTATATTTCACCCTGAAGAGTCCATATAAAATTTCAGAAGG 11111111111111111111111111111111	GCCAATACTAACAAAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAACACA 	FREEGRANTICTGAGAASTICCAGAAATAAATCAGATGGTAATGTAACAGCGACCGTGTGC
1524 As2 1552 303 1644 303	2.45 4.44	14.22 AAGS 11. 1754 AAGS	TEBZ AA	1742 GAG 1. 1874 GAG	1802 AIC  -   1944 AIC	1862 CT/   - 	1922 AG 11 2014 AG	1982 ATC	2042 107    	2152 AT	2162 TTV 11 2234 TTV	2222 102 	2282 IC	2342 EST 11 2474 EST	2402 [][ [] 2544 [][	2462 IGC  } 2594 IGC	2522 FCC
를 찾음	á f	्र इ. इ.	5 B	÷ <u>-</u>	착송	왕 중	3 £	5 3	Á H	5 S	ģ ∰	5 4 5 4	3 B	ទំ ដ	\$ 40 5	5 B	ŝ

Search completed: January 18, 2003, 04:31:47 Job time: 135.092 secs

```
Copyright (c) 1993 - 2003 Compugen Ltd.
GenCore version 5.1.3
```

numbers search, using sw model M nucleic

(without alignments) 16320.731 Million cell apdates/sec January 16, 2003, 15:20:22 ; Scarch time 92.6665 Seconds Kun on:

US - 09 - 026 - 459A - 30 Perfect Score:

1 GCCATCATGGATTITACTGC......AAATGAGGATTATTGATAGT 3392 DENTITY\_NUC Scoring table: Sectionics

191868 seqs, 222914149 residues searched:

Gapop 10.0 , Gapext 1.0

Total number of hits satisfying chosen parameters.

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post processing: Minimum Match 08 Maximum Match 1008

Database :

Listing first 45 summaries

Published\_Applications\_NA:\*

.../con2\_6/ploats.a/l/pubpus\_NISO7\_pubcoMH seq:\*

.../con2\_6/ploats.a/l/pubpus\_NISO7\_NEW\_pUb.seq:\*

.../con2\_6/ploats.a/l/pubpus\_NISO6\_NEW\_pUb.seq:\*

.../con2\_6/ploats.a/l/pubpus\_NISO6\_pubcoMH seq:\*

Zonn 2. 6.7pl odal a / 1 /pubjona / USO 7\_NFW\_PUB\_Seq: \*

/conz 6/ptodata/1/pubpna/PCTUS\_PUBCOMB.seq:\*/equ2\_6/ptodata/1/pubpna/USOB\_NEW\_PUB.seq:\*

/cun2\_6/prodata/l/pubpna/USOB\_PUHCOMH\_seq:\*
//cun2\_6/prodata/l/pubpna/USOS\_NBB\_PUBB.seq:\*
//cun2\_6/prodata/l/pubpna/USOS\_NBB\_PUBB.seq:\*
/cqn2\_6/prodata/l/pubpna/USOS\_NBB\_PUBB.seq:\* /cqn2\_6/ptodata/l/pubpna/US10\_PUBCOMB.scq:\*

/rqn2\_6/prodata/1/pubpna/US6n\_NPW\_DUR scg.\* /cqn2\_b/prodata/1/pubpna/0S6u\_PUBCOMB.seg:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		æ			6511 4 66166	
Ress.11	Score	Ouery Match	Query Match Length DB	178	G1	Description
-	1192	100.0	764.5		US:09-469-522-30	Sequence 30, Appl
~1	¥ 8 ¥	66.3	3455	_	US-09-469-522 28	
~	+ 48 +	69.7	1000	<u>&lt; 1</u>	FRS-09-469-522-1	
4	1383	44.7	4839	ž,	US-09-954-531-143	143,
ű	8.6288	9.66	3554	0.1	US 09 469 522-50	
f,	4315	47.7	* 7 * *	0	US-09-469 522 32	
7	425.5	96.0	395	0	US 09 469 522 34	34,
x	3554	1,54	* C * *	<u>.</u>	08 09 469 522-38	38,
5	1225.4	95.1	3461	10	US-09-469-522-40	40,
10	4212	6.4.7	3218	0.7	US-09-469-522-3	.~
11	4107	91.6	3113	10	IIS-09-469-522-46	\$6.,
77	40.24.6	7.68	1181	2	US 09:469 522 48	
-	3012.6	88.8	3377	=	US-09-469-522-46	46,
-	3008	9.88	3 347	9	US 09-469 522 42	Sequence 42, Appl
1,'	28.27.4	8 1.4	3161	୍ଷ	US-09-469-522-44	
1.6	2686.4	79.3	3662	10	US-09-860-211-7	<
1.7	478	12.6	451	5	US 09-796-692-7740	Sequence 7740, Ap
æ	142.2	4.2	411	10	US-09-864-761-3131	Sequence 3131, Ap
<u>*</u>	6,7 [	æ. T	179	10	US-09-864-761-19910	Sequence 19910, A

TYPE: nucleic acid

Sequence 296, Appl Sequence 37, Appl Sequence 2546, Appl Sequence 1, Appl	Sequence 1, Appli Sequence 1, Appli Sequence 2, Appli Sequence 3, Appli Sequence 3, Appli	Sequence 34.3, App. Sequence 34.3, App. Sequence 4, Appl.1 Sequence 11218, A	Sequence 14521, A Sequence 154, App Sequence 154, App Sequence 5558, Ap Sequence 5558, Ap	Sequence 5785, Ap- Sequence 1, April Sequence 1235B, A Sequence 2769, Ap- Sequence 4147, Ap-	Sequence 4050, Ap- Sequence 749, App Sequence 5166, Ap- Sequence 4, Appl.)
) US-09-964-824A 296 US-09-292-758-47 US-09-794-692-2546 US-09-770-657-1		US-09-969-373- US-09-969-373- US-09-754-853A- US-09-960-352-		) US-09-960-352-5785 0 US-09-790-988-1 0 US-09-864-761-12458 US-09-948-842A-2769 US-09-948-842A-4147	US-09-938-842A-4050 ) US-09-070-927A-749 US-09-938-842A-5166 ) US-09-220-091-4
2.0 3960 9 1.8 324 9 1.5 3747 10	3747 540681 335913 335913	21	1.4 4:1 10 1.4 393 10 1.4 302250 10 1.4 4:1 10 1.3 4:19 10	516 540681 555 2000 2000	1.3 2000 9 1.3 1376 10 1.3 2000 9 1.3 3209 10
104 68.8 59.4 51	51 49.4 48.8 48.8	4 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	47.6 47.6 46.2 8.24	4 4 4 5 4 5 7 6 6 7	4 4 4 4 4 4 4 4 4 4 6 6
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	C 25 26 26	6 28 0 30 0 31	ი ი ყოლი გოლი გოლი გოლი გოლი გოლი გოლი გოლი გ	37 38 40 41	0 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

## ALIGNMENTS

```
Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE, Patentln Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMHER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA
AFFLICATION NUMBER, 75,709,
FILING DATE: 22-Dec-1999
CLASSITICATION: <URKNOWN>
PRIOR APPLICATION DATA:
                                      ; Sequence 30, Application US/09469522; Eatent No. US/00/20151461A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   512,418-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGIH: 3392 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORREY/AGENT INFORMATION:
NAME: Hibler, David W
REGITETRALIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELLICHGANE, 512/418-100
TELETRA, 512/474-7577
INFORMATION FOR SEQ ID 40: 30:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                    NUMBREP OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                    APPLICANT: Xu, Hong Ji
Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                        CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                               STATE
               US-09-469-522-30
RESULT 1
```

```
540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 GITTICITGGATGACACATTTTTTTTTACTAAAGGGGAAGTATTACAAATGGAAGATGATGTG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 AGARCI LERTTAACTTERGAAAARTTFCATCTGTGGAGTATTGGGAGGTTATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                           61 AGAGCIIGGIIAACIIGGGAGAAAGTIICAICIGGAGGAGGAGGAGGAGGAIAIAII 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 CAAAAGAAAAGGAACTGTGGGGAATCTGTTTTTTTTTGCAGCAGTTGACCTAGATGAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 ATGICGTICACITITACTGAGGTACAGAAAAACATAGAAATGAGTGTGCATAAATTGTT 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 AACTIACIAAAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTTG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 AAGAAGTAFGAFGTATFGTTTGCACFCTTCAGCAAAFTGGAAAGGACATGTGAACTTATA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361 TATTIGACAGAACCAAGAAFFCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421 GITICITGGATCACATITITATTAGCTAAAGGGGAAGTATTACAAAT@GAAGGATGTCTG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481 GIGALLICATTICAGITAATIGCIATGIGICCITIGACIATTITATTAAACTICTICACCTICCE 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541 AIGIIGCICAAAGAACCAIAIAAAACAGCIGTGTTAIACCATIAAIGGTICACCCOCCCGAACA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661 ALTALLGAAGTTGTGTAAAGAAGAAGAAGGAGAAGATGAGATGAGGTGAAAAATGTTTAT 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781 GAGGIIGAAAATCITICTAAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGAT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781 GAGGIIGAAAAICTITCIAAACGAIACGAAGAAAIITAICIIAAAAAIAAAAGAICTAGAI 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 AACTTACTAAAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721 LICAAAAATITTATACCITTITATGAATICTCTTGGACTTGTAACATCTAATGGACTTCCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841 GCAAGALTATTTTGGATGATGATAAAAGTGTTGAGAGTGATTCTATAGACAGTTTTGAA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901 ACACAGAGAGACACCACGAAAAAGTAACGTTGATGAAGAGGTGAATGTAATTCCTCCACAC 960
                                                                                                                                                                                                                                                                     1 GCCATCATGGATTTTACTGCATTATGTCAGAAATTAAAGATACAGATGATGATGTCAGAGAG 60
                                                                                                                                                                                                                                                                                             GCCALCATGGALITTACTGCATTATGTCACAAAATTAAAGATACCAGATCATGTCAGAGAG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481 GTGATTTCATTTCAGTTAATGCTATGTCCTTGACTATTTTATTAAACTCTCACCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 AIGICGITCACTTTTACTCAGCTACAGAAAACATAGAAATCAGTGCCATAAATTTCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601 CCCAGGCGAGGTCAGAACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721 IICAAAAAIIIIAIACCIIIIAIAGAAIICICIIGGACIIGIAAACAICIAAAIGGACIICCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 10; Length 3392;
                                                                                                                                                                                                                               indels
                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                             0, Mismatches
                                                                                                                                                                                  100 0%; Score 3392;
100 0%; Pred No O.
                                                                                                             SEQUENCE DESCRIPTION: SEQ ID NO. 30:
STRANDEDNESS: single
                                                                                     LOCATION: 7..2628
                       ToPoloGY: linear
                                                                                                                                                                                                                               Consermative
                                                                  NAME/KEY: CDS
                                                                                                                                                                                                       Best Local Similarity
Matches 3992, Consory
                                                                                                                                     09-469 522-30
                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                        :~
>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>;</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
```

```
961 ACTICCAGTTAGGACTGTTATGAACACTATCCAACAATTAATGATGATGATTTTAAATLGAGGA 1020
                                                                                      1021 AGTGATGAAGCTICAGAAAATCIGAITICCTAITIIAACAACTGCAGAGTGAATGCAAAA 1080
                                                                                                                                                                           1981 AAASTGAAGAATATAGACTTAAATTCAAAATGATGAAAGAGATAGAAGGATGTSCT 2040
                                                                                                                                                                                                                                                                                                                                                                     1141 GUTGTGGGAVAGGTTGTGGAAATTGGATCACAGCGATACAAACTTGGAGTTCGCTTG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261 TTTAGGAAACTTGTGAATGAGAACATTTTGATALGTGT11AATGGGGGTGGGGTGTLGTGAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321 GTTCTAATGGCCACATATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGALITG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1321 GIIGTAATGGCCACATAIAGCAGAAGIACAICICAGAAICIIGAIICIGGAACAGAIIIG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1381 TCTTTCCCATGGATTCTGAATGTGCTTAATTTAAAAGCCLLIGATTTLACAAAGTGATC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1441 GAAAGTTTTATCAAAGCAGAAGGCAACTTGACAAGAAAAGATGATAAAACATTTAGAAGGA 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501 TGTGAACATCGAATCATGGATGGGTTGGATGGGTGTGAGATTGACTTTATTTGATTT 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1501 TGTGAAGATGAATGATGGAATGGGTTGGAGGGGGGGAGATGAGTTGAGTTATTTGATGTT 1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1621 AATCTICCICICCAGAATAATCACAUIGCAGCAGATAIGIATCIIICICCIGIAAGAICI 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1741 ACCICAGCCIICCAGACCAGAAGCATIGAAAIGIACCICICITICACIGIIITATAAA 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1741 ACCTCAGGGTTTTGAGAGGGAAGGGATTGAAATGTAGCTGTTTCAGTGTTTTALAAA 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1801 AAAGTGTATCGGCTAGCCTATCTGCGGCTAAATACACTTTGTGAACGCCTTCTGTGAG 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1921 GAACTCATGAGAGACAGCATTTGGACCAAATTATGATGTGTTCCATGTATGGCATATG; 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1801 AAAGTGTATGGGTAGGCTATGTGGGGGTAAAIAGAGIIIGIGAAGGGGGTTGTGTGAG 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1861 CACCCAGAATTAGAACATATCATCTGGACCCTTTTTCCAGCACACCCTGCAGAATGAGTAL 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1921 GAAGTGATGAGAGAGAGTTTGGACCAAAIIAIGAIGIGTTGCATGIATGGGAIAFGC 1986
1081 GAAAGTATACTGAAAAGAGTGAATATAGGATACATTTAAAGAGAAATTTGCTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                 1201 TATIACCGAGIAAIGGAALCCAIGCITAAAICAGAAGAAGAAGGAITATCCATICAAAAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141 GCTGTGGGACAGGTTGTGTGTGTATTGGATCACAGCGATACAAAACTTGGAGTTGGGTTG
                                                                                                                                                                                                                                                                                                                                                 DP
DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
```

```
2401 IGTAACAGCGACCGFGFGFCAAAAAAAGTGCFGAAGGAAGCAACCFGFFAAAGCACFG 2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2581 AAGGAGAAAFGAAFGAFGGFGGAFGGAFAGGTGAAAGAAGGAGAAATGAGGATCTGAG 2640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2701 AACTFTCCCAGGTTCTGTTTATGGCCACATTTAATATCTTCAGCTCTTTTTGGATATA 2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2761 AAA1GFGCAGA1GCAALTGTTFGGTGATFCCTAAGGCACTFGAAA1GTFAGTCATFGTF 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2821 ATTTATACAAGATTGAAAATCTTGTGTAAATCCTGCCATTTAAAAAAGTTGTAGGAGATTG 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2881 IFFORECTORANGINANATIONICION TIALGOATAGINANGANIGOROGIAGAQIOS 2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2941 GAGLCCTGATAACCCAGGCCLGTCTGACTTTGCCTTCTTTGTAGCATATAGGTGAT 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3001 GITTGCICCTGTTITIATTAAITTAAAGGTATATTTTTTAATTAAATTAAGACCCTT 3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8001 GETEGOTOTIGETITEALIAALITALAIGEATATETETETETAATETAACATGAACACCCTT 3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1061 AGAAAALG GTPPLA RELATETTPPRAATIGGAATITIGA ITGACHGREGCATTGAGGAAAAT 3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILLELLE FILLE FOR TAXABLE FOR THE FILLE F
1981 AAAGTGAAGAATATAGACTTAAATTCAAAATCATTGTAACAGCATAGAGGATGTTGCT 2040
                                                                            2041 CATOMICI MAGAGACALICAAACGIGITTIGAICAAAGAGAGGGGIAIGAITCTAIT 2100
                                                                                                                                                                       2041 CATHING HOAGGAGALALTOAAGGTGTTTTGATCAAAGAGGAGTATGATTGTATT 2100
                                                                                                                                                                                                                                                                                                      151 PCCACCAGGCCCCTACCTFGFCTCACCACATCCTCGGAGGCCTTACAAGTT 2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2221 PORTAGERICACIONELACIGA FEOREACEGAACATOLATATEREACOCOLIGAAGAGECCA 2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2281 TATAAAATTTGAGAAGGTGTGGCAAGAGGAAGAAAAATGAGTGGAAGATGAAGAATGTTA 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2461 AAAAAACTACGCTTTGATATTGAAGGATCAGATGAAGCAGATGGAAGTAAACATCTGCCA 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2521 GGAGAGTONAAALITGAGGAAAAGTGGGAAAAGAATGAGTGGAAGGAAGAATGGAA 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2641 GACCTTGGTGGACACTGTGTAAGGTCTGGAITCAITGTCTCACACAGAIGTGACTGTAT 2709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2821 AFFIAFACAAGALIGAAAALGIIGTGTAAATGCTGGCATTTAAAAAGTTGTAGCAGATTG 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2881 TTTCCTCTTCCAAAGTAAAATGCTGTGCTTTATGGATAGTAAGAATGGCCTAGAGTGG 2940
                                                                                                                                                                                                                                                                                                                                                                                                                           2161 TOTACCAGGGGGCTTACCTTGFCACCAALACCTCACATTCCTCGAAGCCTTTACAAGTTT 2220
                                                                                                                                                                                                                                                             2101 ATASTAT FCTATAGTGGGTCTTGATGGAGAGTGAAAACAAATATTTGGAGTATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                 â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>-</u>
                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
```

```
HITTELLETTELLETTECAAAAATGGAAAATTAAAAATTAGAAATTAGAAAAAATTA
                                                                                                                                                                                                                                                                                                                       3301 ACTGAAACAGATTICATACCICAGAATGIAAAAGAACIIACIGAITAIGIICATCA 3360
                                                                                                                                                                                 3241 TTTTGCTTTTAAFTAAAAGGTGGAAGGAAAGTATAAFTATAGAAGTAGAAAG
3121 TATCCTGAACTCTTCTGCAAAAATGGATATTATTAGAAAATTAGAAAATTACTAATTT +180
                                                                                        3181 TACACATTAGATTTTATTTTACTATTGGAATCTGATATACTGTGTGTTTTTTATAAAA
                                                                                                                                                                                                         TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                     3361 ACTIAIGITITIAAAIGAGGATIAIIGAIAGI 4492
                                                                                                                                                                                                                                                                                                                                                                                                             3361 ACTTATGTTTTAAATGAGGATTATTGATAGT 4492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERALING SYSTEM: PC DOSZME FOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: 7..2691
SEQUENCE DESCRIPTION: SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: 010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: 512,7418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 28, Application 98/09469522
Patent No. 0820020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 3455 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, Hotog-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEC ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-469-522-28
                                                                                                                                                                                                                                                                          3301
                                                                                                                                                                              ò
                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                           5
                                                                                                                                                                                                                                                                          ò
```

99.7%; Score 3883; DB 10; Length 4455;

Query Match

										-				•				_
ò				,														
2	69 132	129	189	312	309	369	429	489	549 612	609 672	669 732	729	789	912	909	969 1032	1029	
	0.1116 0.1111 0.1111	TCAAAAGAAA 	TCGTTC         rcctrc	TTACTA [[[[]]] TTACTA	AATGCTATGTCAAGACTGTTGAAGAAGTAT 	TTGACA FILLFI TTGACA	CTTGG        CTTGG	TTTCA	16CTC               19010	ISSITCACCI CSAN ACCCASSCSA 	OTTATTGAA TITTITITI TTATTGAA	AAAAAT        AAAAAT	TIGAA        TIGAA	AAGATTA 	CAGAGA 	CCAGTT	TGATCAA TTTTTTT TGATCAA	
n	0.80.80 	TCAAA	GAGATGT 	A S	GAAGA         GAAGA	ATATATT 	AAAAGTTTC 	TGGTGATT 	CATGUTC 	ACCCA ACCCA	AATTA        AATTA	TTTCA	TTCCAGAGGTI 	8 = 8	\$ = §	CACTC 	AAGTG          AAGTG	
	3107A4A4A4A4A971 	ATA:	CTAGATGA TTTTTT CTAGATGA	MTCTTT/            TCTTT/	CTOTT	2 = 5	CTAAA 	- 월드월	GECCTTGACTATTTTATTAAACTCTCGCTCCC 	CGAAC	AGAACAGGAGTGPAGGA FAGSAAAAAAN YAGAAAATGA FAGAAGAA 	TGAAAAIGITTATTIC 	CITCO HIII)	$\circ$ $\circ$ $\circ$	HITTIGAAP HITTIGAAP	rccacacactc 	TITTAAATTCAGCAAGT 	
ò	ICAIG10 	GPTTCAPCTGGGAGGGGGGGGGGGGTT 	SACCIA	ATAAATT	CAAGA HIIII CAAGA	ICTICAGCAAATIGGAAAGGACATGTGAAC 	AAATTETGEATIGGTGET 	HITTIATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGA HILLIHIHHHHHHHHHHHHHHHHHHHHHH TITITATTAGCTAAAGGGAAGTATTAGAAATGGAAGATGA	TCTCA	CACCI	ATGAT	AAAATI 	TAATGGACTT 	TAAAGATETA 	AT AGACAGE 	AATTCCIC 	TAAAT          TAAAT	
)	45 E	FATTGE	AGTTC	VATCAGEGECCA 	TATG	SGACAT FILLI SGACAT	TEGCA)	AAATGC	FFAAAC FFAAAC FFAAAC	AIGGE	AGAAA FAGAAA	AGGTGA 		AAAATA	TATAC TITIT	ATGTAA 	GATGATTT             GATGATTT	
	TAAAGATAGU 	166AG 1   1   1 164AG	racag IIIII IGCAG	AATCA        AATCA	TAATG	GGAAA(               CAAA(	AAATT        AAATT	ATTAC.            ATTAC.	FTTTA 	CALTA	ACAAC	TATAGATGAGGT 	TTGTAACATC              TTGTAAGATG	CTTA         CTTA	TGATTETA             TGATTETA	SGTGAZ  - - -  - - -	TTAATGA	
		G166A        GTG6A	CTTTATTGCAGCAGTTGAG 	ATAGAAA           ATAGAAA	paccaaacitigata 	AAATT        AAATT	VICTACTGAAATA 	GAAGI HILLI GAAGI	GACTA	TAAAACAGCTGTTATACCCATTAA HIHIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	GCAAA   I I I I   GCAAA	AATAT 	FFCTCTTGGACTT 	ICTAAACGATACGAAGAAATTIATCTTAAAAATI 	OGATCATGATAAAACTCTTCAGAC FILLITITITITITITITITI GGATCATGATAAAACTCTTCAGAC	TTGAIGAAGAGGTGAATGT 	CAATT	
)	ATGTCAGAAAT 	CATOT IIIII YATOT	TTGGGGAA PÇTGTATÇ H	ACTGACCTACAGAAAAAATATA  - - - - - - - - - - - - - - - - - - -	AAAA 	TCAGC 	CTACT         	AAGGG HIIII AAGGG	TCCTT	CIGII          CIGII	GGATA IIIII GGATA	CATGAATGTAATA 	CICIT	AAGAA        AAGAA	CTCTT CTCTT	TTGAT        TGAT	TATGAACACTATCCAACAA TILLITILITITITITI TATGAACACTATCCAACAA	
	AIGIC	AGTTT 	AATCT	ACAGA TITT	TGATACCAGTA TTTTTTTTTTTTTTTTTTTTTTTTTTTT	ACTCT 	TECGATAI           TPCGATAT	AGCTA          AGCTA	STIAATGCTATGTG 	AACAG 	TGCAC THIII	ACATG TITT	TGAATT 	ATACG 	TAAAA 	BAAAAAGTAACCTT HIIIIIIIIIII BAAAAGTAACCTT	CACTA	
	GCALTAI           GCALTAI	TGGGAGAAGT THITHIT TGGGAGAAAAGT	araaaa 	GAGCT	GATAC	HTT FGCACT THEFT FACTOR	AGIIC 	TTATT	ATGCT  - - -  ATGCT	< <	AGCAC  - - -   - - -	HGTAAAGAACA HTTTTTTT TGTAAAGAACA	YT.	AAACG 	CATGA CATGA	AAAAG	AIGAA IIIII ATGAA	
	TTACTGC/                TTACTGC/		1 - 1		AAAGAAATT	A = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 =	CAACCCAGCAGI LELLELELELE CAACCCAGCAGI	CALIT	CAGITA 11111 CAGITA	AAAGAAGGAT 	CAGAAG              GAGAAG	9 = 9	TATACCTTT	ICTITICE ICTITICE	TGGAT	ACCACGA 	AGGACIGIII FILLILITI AGGACTGIT	
	SATT	FFAACT FFFAACT FFFAACT	AAGGAA           AAGGAA	ACTT             ACT		2 = 5 2 = 5 2 = 5		ALCACA!	ΞΞΞ	AAAG AAAG	0610 	2 5 7 7 7 7	===	₹ <del>-</del> ξ	1111111 11111111 111111111	S = S		
	10	7.0	130	190	±5€ +13	410	470	430	490	555	610	0.7.0	740	740	850 413	913	970 1033	
	5 3	λ Q Q	A q	å ±	is a	7.0 de	3 8	5 G	45 G	충출	Š a	AC HO	<i>₹</i>	5 g	S S	중 출	智 岩	

```
1090 CTGAAAAGAGGAGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAACCTGGGGA 1149
                                                                                                                                                                                                                                                                                                                                                                   1270 CITCIGAALGAMAAMIITIGATAISIGIITALIGGOGIGGGGICTIGAGGIIGIAAIG 1329
                                                                                                                                                                                                                                                                                                                                                                                               2110 TATAACTCCCCTCTTCATGCAGAGACTGAAAAAAAAATATTTGCAGGTACGCTTCCASSASS 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2173 TATAAACTCGGTCTTCATGCAGGAAACAAAAAAAAAATATTTTGGAGTATGG FGGAAAG 2232
1093 COTTCAGABABICTGALTICCIBLILLABCABCICCACAGIGABICCABABGABGIBIA 1152
                                                                                                                                                           1150 CAGGGTTGTGTGTGGAATTGGATGACGGATACAAACTTGGAGTTGGCTTGTALTAFCGA 1209
                                                                                                                                                                                                                                                               1210 GTAATGGAATCCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGCAAA 1269
                                                                                                                                                                                                                                                                                                                    1273 GTAATGGAATGGATGGTTAAATGAGAAGAAGGATTATGGATTGAAAATTTTAGGAAA 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1330 GCCAMATATAGMAGAAGTAMATQTMAGAAWMELGAFFYYLGGAAGAGATTTGTYTTTGCGA 1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1390 IGGALICIGAAIGIGCITAAILTAAAGCCIIIGAIIITIACAAAGIGAICGAAAGTIII 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1690 AAAGGTICAACTAGGGGTGTAAATTGTAG GGAAALGGAGGAGGAGGAAGGAACGTAGGG 1749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1810 PREFIRED FREEDRESSETAAATACACTITGIGAACGCCTICTGICIAGGCACCCAGAA 1869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1933 TTAGAAPATATPARCESANOSTITIONASACACCTISCAGAAISAAGAATGACTGI 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1630 CTCCAGAATAATCACACTGCAGCAGATATGTATCTTCTCCTGTAAGATCTCCCAAAGAA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1750 ITCTAGAAGAAGAATTAAAATCIACICICITECACIGITITATAAAAAGIGIAI 1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1870 TTAGAAGATATGATGTGGAGGGTTTTGGAGGAGGGTGGAGAAIGAGIAIGAAGIGAIG 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1930 AGAGACAGGCATTTGGACCAAATTATGAGGGTTCCATGTATGGCATATGCAAAGTGAAG 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1993 AGAGACAGGGATTTGGAGGAAATTATGATGTTGGATGTATGGGGATATGGAAGTGAAG 2052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1990 ANTATAGACCTIANATICAANATCATIGIAACAGAAAAAGGAIGITGGITATGGTGIT 2049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2053 AAIAIAGACCTIAAATICAAAAICAIIGIAACAGCAIACAAGGAICTTCCICAIGCIGIT 2112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2113 CAGGAGACATTCAAACGTGTTTTGATCAAAGAAGGAGTATGATTCTATTATATATTC 2172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1153 CIGAAAAGAGIGAAGATAIAAGAAIACAICTIIAAAGAGAAAIITGCIAAAAGCIGIGGGA
                                                                                                                                                                                    1393 GOCACATATAGGAGGAAGTAGAGAATGTGGATTTGTGGAAGAGTTTGTGTGTTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1453 "GGAT"PCFGAATGTGCTTAATTTTAAAAGCCTTTGATTTTTACAAAGTGATGGAAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1513 ATCAAAGCAGGAAGTIGACAAGAGAAATGATAAAACATTTAGAACGATGTGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1510 CGAATCATGGAATCCCTTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTTAAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1573 CGAATCAIGGAATCCITGTAGGCTCTCAGATICACCITIATTIGATCITATTAAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1570 TCAAAGGACCGAGAAGGAACCAACIGAICAACIGAAICIGCITGICCITAAICIIAAICIICOI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . ov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ob
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \delta
```

Tue Jan 21 10:02:46 2003

```
247 * GACGEGEGCECAAAAGAAGEGCEGAAGGAAGCAACCCCCTAAACCAGTGAAAAAAAACTA 2532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2533 CONTITION INTEGNACIATION CANALIST CONTINUES AND CONTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2590 ATGAATGATAGGATGGATACCTCAAACGAAGGAGAATGAGGATCTCAGGACCTTGGT 2649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HISTELLI HITTELLI HIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   271. GGAGACTGTGTACACTGTGGATTCATTGTGTGTGTGACAGATGTGACTGTAAAGTTEGGC 2772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2710 AGGTTGTGTTTATGGGCACATTTAATATGTTGAGGTGTTTTTGGGGAIATAAAATGGGG 2769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2770 GATGGAATTGTTTGGGTGATTCCTAAGGCACTTGAAATGTTAGTCATTGTTATTATACA 2829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3010 IGPTHTAFTAATTFAFABIAFTFFFTAATTFAACATGAACACCTTAGAAATGT 3069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25.5 GATTTATTTACTATGGGAATGTGATATACTGTGTGTTTTATAAAATTTTGGTTT 3312
                                                                                                                                                                                                                                      2230 COLITAGGGATICCTGGAGGGAACATCTATATTTGAGGGGGAAGAGAGAGATATAAAATT 2289
                                                                                                                                                                                                                                                                                                                                                      2294 POPITAM GOATTO TO GANDO AND TATATATA TO POPICA GANGAGICA ATAMANTE 2352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2530 AAATTTCAGOAGAAACTGGGAAAATGACTTCTACTCGAACAACGAATGCAAAAGCAAAA 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2650 00ACACTOTOTACACCTOTGGATTCATTGTCTCACACACACTCTATAACTTTCCC 2709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2833 CATGCAATTGTTTGGGTGATTGCTAAGCCACTTGAAATGTTAGTCATTGTTATTATATACA 2892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2830 AGALTGAAAATCTTGTGAAATCTGGGALTTAAAAAGTTGTAGGAGATTGTTTGCTGTT 2889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  289 CAGATTGAAAATCTTGTGAAAATCCTGCCATTTAAAAAGITGTAGCAGATTGTTGCCTT 2952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2890 CCAAAGTAAAATTGCTGTGCTTTATGGAIAGTAAGAATGGCCCTAGAGTGGGAGTCCTGA 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2950 TAACCCAGGCCTGTCTGACTACTTTGCCTTTTTGTAGCATATAGGTGATGTTTGCTCT 3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      §1.30 CTCTTCTGCAAAAATGGATATTATTAGAAATTAGAAAAAATTACTAATTTTAGACATTA 3189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3190 GALEFFALLER/FALEGAALCEGATATACEGEGGGGTGTFTFFATAAAAFFFFGGTFF 3249
2170 CCCCCTACCTGTCACCAATACCTCACATCCGCCAAGCCCTTACAAGTTCCTAGTCA 2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4070 GTCCTAFCTATCTTCCAAATGCAATTTGACTGCCCATTCACAAATTATCCTGAA 3129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                          =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            - 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
```

```
3310 GATTTCATACCICAGAATGTAAAAGAACTTAATTGATTCTTTCATCTAACTTATGTT 3369
                                                                                                      3250 TAATTAAATAAAAGCTGGAAGCAAAAGTATAAACCATATGATACTATCATACTACTATGAAAAA 3309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70 TTAACTTGGGAGAAAGTTTCATCTGTGGATGGAGTATTGGGAGGTTATATTCAAAAGAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                o; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 GATTTTACTGCATTATGTCAGAAATTAAAGATACOAGALCALGICAGAGAGAGAGTTGG 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99.78; Score 4383; DB 10; Length 4555;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IHM PC compatible OFEKAIINS SYSTEM: PC-DOS/MS-FWS SOFTWARE: PatentIn Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Arnold, White & Durker STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: 7..2790
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                    Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                   3370 TITTAAATGAGGAFTATTGATAGT 3392
                                                                                                                                                                                                        3433 TITTAAATGAGGAFTAITGATAGT 3455
                                                                                                                                                                                                                                                                                                               Sequence 1, Application 05/09469522
Patent No. 0S20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 3555 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.08; Prive 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ 1D NO: 1: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                       Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                  Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 3383; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE
                                                                                                                                                                                                                                                                                           US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                      RESULT 3
                                       9
                                                                                  င်
                                                                                                                        a
                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
```

21 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	729 891 789 951 101 107 107	113 102 119 1108 125 114 131 137
HAACH GOGAGAAAGH FCAFCFG FGGALGGAGTATFGGGAGG FFAFAFFCAAAAGGAACH GAGATGAACH GAGAAAACAFAACAGAAAACAGAAATGAACH GAGATGAACH GAGAAAAACAFAAATGAACH GAGAAAAACAAAAAAAAAAAAAAAAAAAAAAAAA	######################################	GITCTCGTAAAGAACATGAATGTAATATGAGGGGGAAAAATGTTTATTCAAAAATGTTTCTCAAAATGTTTCTCAAAATGTTTCTCAAAATGTTTCTCAAAATGTTTTCAAAAATGTTTTTCAAAAATGTTTTTCAAAAATGTTTTTTCAAAAATGTTTTTTCAAAAATGTTTTTTCAAAAATGTTTTTTTCAAAAATGTTTTTTTT	ACACCASSAAAAGTAAACTTGATGAAAGGGGAAGTAATATAATTGCTCAGACACTCCAGGTT  AGGACTGTTATGAACACTTGAACAACAATAATGAATGTAATTGATGACACTCCAGGTT  AGGACTGTTATGAACACTTGCAACAACAATAATGATTTTAAATTCAGCAAGTGATCAA  AGGACTGTTATGAACACTTTCCAACAATAATGAATTCTAAATTCAGCAAGTGATCAA  CCTTCAGAAAAATCTGATTTCCAATTTTAACAACTGATTTTTAATTCCAAAAAGTATA  CTTCAGAAAAATCTGATTTCCTATTTTAACAACTGCAATGAATTCGCTAAAAGTATA  CTGAAAAGAGTGAAATTCTATTTTAACAACTGCATAGTAATTCCTAAAAGTTTTTTAACAAAATTTTTTAACAAAATTTTTAAAAAGTATTTTAAACAAATTTTTTAAAAAATTGCTTGC
	472 370 4490 4490 552 550 510	8442 7462 7462 7463 850 850 910	~ = ~ = ~ = ~
2 3 2 3 2 3 2 3 2 3			d 3 8 3 8 5 6 5 6

```
1551
                                                                                                                                                                                                                                                                    1509
                                                                                                                                                                                                                                                                                                                                  1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2049
                                                               1270 CTTCTGAATGACAACATTTTCATATGTCTTTGGCGCTCTTGAGGTTGLAAIG 1329
                                                                                  1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCCCTACCTTGTCACCATACCTCACATTCCTCGAAGCCCTTACAAGTLLCCTAGTLCA 2341
                 1390 TGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAGGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1210 GTAATGGAATGGTTAAATGAGAAGAAGAAGALIAFGGATTGAAAATITTAGGAAA
                                                                                                                                 1330 GCCACATATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTGCCA
                                                                                                                                                              1492 GCCACATATAGCAGAACTACATCTCAGAATCTTGALICLGGAAGAGATITGLCTLICGCA
                                                                                                                                                                                                                  1630 CTCCAGAATAATCACACTGCAGCAGATATGTATCTTTGCTCGTAAGATCTCCAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1870 ITAGAACATATCATCTGGACCTITTCCAGCACACCCTGCAGAATGAGTATGAAACTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1930 AGAGACAGGCATTTGGACCAAATTATGATGTGTTGCATGTATGGGATATGCAAAGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2050 CAGGAGACATTCAAACGTGTTTGATCAAAGAGGAGGAGGATGTTTTATAGTATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2110 TATAACTCGGTCTTCATGCAGAGACTGAAACAAATATTTTGCAGTATGCTTCCACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1450 ATCAAAGCAGAAGGAAGTIISAGAAGAAATGATAAAAGATTTAGAACGATGTGAACAT
                                                                                                                                                                                                                                                                                                  1612 ATCAAAGCAGAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAAGAT
                                                                                                                                                                                                                                                                                                                               1510 CGAATCATGGAATCCCTTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTAAACAA
                                                                                                                                                                                                                                                                                                                                                                                               1570 TCAAAGGACCGAGAAGGACCAACTGATCACCTTGAATCTGCTTGTCCTCTTAATCTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1750 TTCCAGACCCAGAAGCCATTGAAATCTACCTCTCTCTCTGTTTTATATAAAAAAGTGTA1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1912 ITCCAGACCCAGAAGCCATIGAAAICTACCTCTTTCACTGTTTTATAAAAAAGTGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2092 AGAGAMAGGMATTIGGAMMAAAITAIGAIGIIICCAIGIATGGGAIAIGIAAAGIGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1990 AATATAGACCTTAAAATTCAAAATCATTGTAACAGGATACAAGGATCTTGCTCATGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2230 CONTRACGATIONTGGAGGAACAIGIAIAITIGACCCIGANGAGICCAIAIAAAII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2332
                               G
                                                                                                                                                                G
                                                                                                                                                                                                                                                                 οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                               Οý
                                                                                                                                                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QΫ́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           òλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qu
```

Db 3532 TITAAAIGAGGAITAITGAIAGI 3554

```
2290 TCAGAAGGTCTGCCAACAACAAAAATGACTCGAAGAACAACAATCTTAGTATCAATT 2349
                    2452 FCAGAAGGEGGGGAACAGGAACAAAAA IGACEGGAAGAEGAAGAEGTAGEATT 2511
                                                                                                                                                      2410 DANYOROGORGAAAGAAGTGCTGAAGGAAGGAAGCCTGCTAAAGCACTGAAAAACTA 2469
                                                                                                                                                                                                                                                                                                                                                                                                                  2710 AGGIICHGITHAIGGCCACAFHIAAFAFCFTCAGGTCTTTTTGTGGATAIAAAATGTGCA 2769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         287.2 ARGITECTETTATGGCCACATITAATATCITEAGGCTETTTTGTGGGATATAAAATGTGCA 2931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2950 FAACCCACACCTCTCTCACTACCTTCCCTTCTTTCTACCATATAGGTGATGTTTCCTCT 3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4310 GATTICATACCICAGAAIGIAAAAGAACTTACTGATTATTTTCTTCATCCAACTTATGTT 3369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.450 OGTGAALGAFTCGGGACTTCTGAGAAGTTCGAGAAATAAATGAGATGGTATGFAAGAGG 24.09
                                                                                                2572 GAMBITGLIGGLMAAAAGAAGLGCLGAAGGAAGCAACCTICCTAAACCACTGAAAAACTA 2631
                                                                                                                                                                                                                                   2470 OGUTTTGATATTGAAGGATCAGATGAAGCAGGAAGTAAACATCTCCCAGGAGAGTCC 2529
                                                                                                                                                                                                                                                                          2632 (1901F) GATA FIGARAGGAT CAGAT CAGAT GGAACTAAACAT CYCCCAGGAGGAGT CC 2691
                                                                                                                                                                                                                                                                                                               2530 AAATIICAGGAGAAAGIGGGAGAAAIGACIICIACIIGGAAGACGAAIGCAAAAGCAGAAA 2589
                                                                                                                                                                                                                                                                                                                                      2590 AFGAATGAFAGGAFAGGAFACGTGAAGAAGAAGAAATGAGGAFGFGAGGACCFFGGF 2649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2650 GGACACTGTGTACACCTCTGGATTCATTGTCTCTCACAGATGTGACTGTATAACTTTGCC 2709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2812 GGAGACTGTGTACACCTCTGGATTGATTGTCTCACACAGTGTGACTGTATAACTFTGCC 2871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2779 GARGYAALIGITIGGGEGALIRGIAAGGGAGGTGAAATGTTAGEGATGTTGTTATATAGA 2829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2830 NOALIGAAAATGIIGIGIAAATGGIGGGAIIIAAAAAGIIGIAGGAGAITGIITGGGTT 2889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2890 CCAAAGTAAAAFFGCTGFGGTTFATGGATAGTAAGAAFGGGGCTAGAGTGGGAGFGGTGA 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0052 COAAAGTAAAATTGCTGTGCTTTATGGATAGTAAAATGGCCCTAGAGTGGGAGTCCTGA 3111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        020 GLOCHALCHARCHROMAAFGOAATHGAFFGGCCCAFFCACGAAAAFFAFGFGAA 3129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   §130 CLCTTCFGCAAAAALGGALALLALTAGAAATTAGAAAAAAAATTAGTAATTTTACACATTA 3189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4190 GATITIATITIAGIATIGGAATGIGATATACIGIGGIGGITGITIATAAAATITIGCITT 3249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 izso taattaaataaaagetggaagfaaagtataaggatatgatagatagtagtagtagtggaaaga 3309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          412 TANTTAAATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATGATACTACTACAAACA 3471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (0) 10 TGTTTTTATTAATTTATATGTATATTTTAATTTAACATGAACACCCTTAGAAAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4370 TITAAATGAGGATTAITGATAGT 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                      5
                                                                                                                                                                                                                                                                    =
                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
```

```
TITLE OF INVENTION: Process for identifying Anti-Cancer Therapeutic Agents Using C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70 TTAACTTGGGAGAAAGTTTCATCTGTGGATGGAGTATTGGGGAGGTTATATTCAAAAGAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       463 TTAACTTGGGAGAAAGTTTCATCTGTGGATGGAGTATTGGGGGGTTATATTTCAAAAAAA 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         130 AAGGAACTGTGGGGAATCTGTTTATTGCAGGAGTTGACCTAGATGAGATGTGTTC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                423 AAGGAACTGTGGGGAATCTGTATCTTTATTGCAGCAGTTGACCTAGATGAGATGTCGTTC 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190 ACTITIACIGAGCIACAGAAAAACATAGAAAICAGGIGCGATAAAIICTIIAACITACIA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 250 AAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTAT +09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          310 GATGFATTGTTTGCACTCTTGAGGAAITGGAAAGGAGTAGFGAAGTTATATATATGAGA 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    370 CAACCCAGCAGTTCGATATCTACTGAAATTCTGCALIGGTGAAAATTTAGTGG 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          430 ATCACATITITATIAGCIAAAGGGGAAGIATIACAAATGGAAGAIGAICATGTGATTTCA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               723 ATCACATITITATIAGCIAAAGGGGAAGIATIACAAATGGAAGATGATCTGGTGATTTCA 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1) HILLI TARANI MARKANI 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       490 TTTCAGTTAATGCTATGTGTGTGTTGACTATTTATTAACTGTGACTGTCCA FGFTGTTS 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           543 AAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTGAAGACTGTTGAAGAAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.7%; Score 3383; DB 9; Length 4839;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indeis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 0:
                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/954,531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US/60/233,133
PRIOR FILING DATE: 2000-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR FILLING DATE: 2000-09-20
PRIOR APPLICATION NUMBER: US/60/234,509
PRIOR FILLING DATE: 2000-09-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US/60/234,009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR FILING DATE: 2000-09-20
PRIOR APPLICATION NUMBER: US/60/234,044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US/60/234,567
                                                      . Sequence 143, Application US/09954531
; Patent No. US20020165180A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002-05-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Gene Sets FILE REFERENCE: 689290 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000-03-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 3383; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Weaver, Zoe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               t US-09-954-531-143
US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
```

```
3003 ACM 101GT FITAL GGCCACALL FAA FACE FCAGCT CTTTT GT GGATALAAAAT GT GCA
                                                                                           2770 GATGGAATTGTTTGGGTGATTGCTAAGGCAGTTGAAATGTTAGTCATTGTTATATACA 2829
                                                                                                                                 412.4 AGATTGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCAGATTGTTTCCTCTT 3182
                                                                                                                                                                                                                                                                                                                                                                                                                                                          2890 CCAAAGTAAAATTGCTGTGCTTTTATGGATAAGAAATGGCCCTAGAGTGGGAGTGCTGA 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HELLITELLE HELLE H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2950 TAACCCAGGCCIGICIGACIACITIGCCTICITITIGIAGAIATAGGIGATGTIIGCICI 3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   424 FTAACCCAGGCTGTGTGACTACTTTGCCTTCTTTGTAGCATAFAGGTGALGTTTGCTCT 8302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3362 3304 TGTTTTATTAATT1ATATGTATATTTTTAATTTAACATGAACACCTTAGAAAATGT 3362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            §130 CTCTTCTGCAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTACAATTA 3189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3190 GATELLATITTAANATGGAADGTGALAFACTGTGTTGTTTTATAAAATTTTGCTTTT 3249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4250 TAATTAAATAAAAGCTGGAAGCAAAGTATAACCATACTACTATATAATACTAAAACS
                                                                                                                                                                                                                                                                        2830 AGAFIGAAAAICTIGIGTAAAIFCIGGGATFTAAAAAGFFFGFAGGAGAFFGFFFGFFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8070 GTCCTATCTATCTTCCAAATGCAATTGATTGACTGCCCATTCACCAAAATTATCCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8010 IGHTEFFALLAAFTTFAFAFGFAFATTFTFAAFATGAAGAGGGTFAGAAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: MODIFIED RETINUBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                        SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469.522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3392 TITLAAATGAGGATTALIGATAGI 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             466.3 TITAAATGAGGATTATTGATAGT 3685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 50, Application 98/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No. USZOGZSISI461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM IYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
US 09 469 522 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
```

```
310 GATGTATTGTTTGCACTCTTCAGGAATTGGAAAGGACALGTGAALTLATALALLLGACA 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTHILITHHILLIHHILLIHHILLIHHILLIHHILLIHHILLIHHILLIHHILLIHHILLIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       550 AAAGAACCAIAIAAAACAGIGIIAIAACCAIIGAIACAA 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   610 GGTCPGAAAVAGGAGTGCACGSAAACAACAACTAGAAATGATAGAAATGATATTGAA 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         670 GTPCPCPGPAAAGAACATGAAFGFAATAFAGATGAGGTGAAAAATGTTLATTTCAAAAAT 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      70 TTAACTIGGGAGAAAGITICAICIGGGAIGGAGIAITGGGAGGIIAIATICAAAAGAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           130 AAGGAAMTGTGGGAATGTGTATGTTTGCAGGAGTTGAGGTAGATGTGTGTTG 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            472 GATGTATTGTTTGCACTCTTCAGCAAATTGGAAAGGACAIGIGAACTIAIAIAIIIGACA 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             370 CAACCCAGCAGIICGAIAIGIAGIGAAAIAAAIICUGGAIIGGUGGUAAAAAH FGFIGG 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     430 ATCACATITITATIAGCIAAAGGGGAAGTATIACAAAIGGAAGATGATCTGGTGATTTCA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          490 TTTCAGTTAATGCTATGTGTGCTTGAGTATTTTALLAAAGTGTGACTGCTALGTHGCTG 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                772 GGTCASAACAGAGTGCACGGATAGCAAAAACAACTAGAAAATGATACAAGAATTATTGAA B41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             172 GATPTPAGFGCAPFAFGTCAGAAATTAAAGAFACCAGALGALGFGAGAGAGAGTFGG 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            O; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10 GAITITACEGCATTATGECAGAAATTAAAGATACAGAGATCAEGAGAGAGAGAGTEGG 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               132 TTAACTTGGGAGAAAACTTTCATGTGTGGATSSACTATGGGARGATATTGAAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190 ACTITIACTGAGCIACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     250 AAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTGAAGACTGTTGAAGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.68; Score 4379.8; DB 10; Length 4554;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ñ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                     REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFO:MANIION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE DESCRIPTION: SEQ ID NO: 50:
                                         PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
REGISTRATION NUMHER: 41,071
                      CLASSIFICATION: < Unknown>
FILLING DATE: 22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 3554 base pairs
                                                                                     FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                            INFORMATION FOR SEQ 10 NO: 50: SEQUENCE CHARACLERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                         7 . . 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                186.66
                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 3381; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: COS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                             FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ç.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
```

	TTGTAACATCTAATGGACTTCCAGAGGTTGAA 95	HATCITAAAAATAAAGATCTAGATGCAAGATTA 8	AAAACHCTEECACHGAFTGTATAGACAGTETTIGAAACACAGAGA 909 	GATGAGGGGTGAATGTAATTGCTC 	CAACAATTAATGATTTTAAATTCAGCAAGTGATCAA 10	TCCTATTTAACAACTGCACAGGGATCCAAAAGAAACTATA 1089 	NIATAGGATACATCATTAAAGAGAAATTTGCTAAAGCTGTGGGA 1149 FELLELELELELELELELELELELELELELELELELELE	9 - 3 - 3 - 4 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3	TGAAATCCATGCTTAAATCAGAAGAAGAATTATCCATCAAAATTTTTAGCAAA 1269 FELLITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	III CAFALGICII IAFFGGGGFGGGGTGTGGAGGTTGTAATG 1329 	CATCHCAGAATCTFGATFCTFGAACAGATTFGTCTFFTCCCA 13	r 14-	ACATITAGAACGATGIGAACAT 1 	GGATGGCTCTGAGATTGAGCTTTALTTGATCTTALTAAAGAA 1569 	SALCACCTICAATCIGCTIG HILLIHIIIIIIIIIIIII SALCACCTIGAATCIGCTIG	ANGTATCTITCICCIGIAAGAICICCAAAGAA 16: 	:ACTGC  - - - - :ACTGC	AAATGTAGGTG
HILLILLE HILLIIIIIIIIIIIIIIIIIIIIIIIIIII	892 IIIAIACCITTARGAATICICITGGA	790 AATOTETGTAAACGATACGAAGAATT 1111111111111111111111111111111	SALCATGAT SALCATGAT	TAACC 	AGGACTGI TITITIT ZAGGACTGI	COLCAGAAAALCIGATTICCTATTI	U CTGBADAGAGTGAAGG !!!!!!!!!!!!!!!!!	1150-CARRELIA GERAAATT BAARFAAA GEGATAGAAAATT 1907   1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	1210 GTAATGGAATCATGCTTAAATGAGAA 1111111111111111111111111111	CTTCTGAATGACAACA	GCCACATATAGCAGAA 	1.5% 103A FCLGAAFCTGCTTAAFTTAAAA 	1459 AEGAAAGCARAARAYAMITKAATAKA 	0 0 2	O FCAANGAÇOSAGAAGACGAACTGATTTTTTTTTTTTTTTTTTTTTTTTT	WAATAATCACACTGCAGCAG  - - - - - - - - - - - - - - - - - - -	1690 AAAGGIICAACDAGGGGGGAAATTCT 	A A A
<u>a</u> 3	<del>1</del>	Oy Db	9.Y	÷ ±	5 8	5 G	δ <u>a</u>	\$ <del>8</del>	ç qa	हें हैं	57 E.E.	5 ±	§ ₹	5 8	5 3	S G	cy Cy	ç

2092 AGAGAGAGATTTGAACAAATTATGATGTGTTOCALGAAGGAATGGAAGGGAAAGGGAAAG 2230 COTTAPORTHOSPOSASOSARACIAIATEROSOSOSASARAGORATAAAA. 2289 2452 TCAGAAGALGTGGGAAGAAGAAAAAATGAGTGGAAGATGAAGAATGTGAGATT 2511 2410 GACCOTGAAAAAAAAGAAGTGCTGAAGGAAGCAACCCCTAAACCACTGAAAAAGA 2469 1810 CGGCTAGCCTATCTCCGGCTAAATACACTTTGTGAACGCCTTCTGTGTGTCTGAGCACCAGGA 1869 1930 AGAGATATATATATATATATATATGATETECCATGIALGGCALALGCAAAGIGAAG 1989 2050 CAGGAGACATICAAACGTGTTTTGATCAAGAAGAGGAGTATGATTCTALTALACTALIC 2109 2212 CAGGAGACATICAAACGTGIIIITGAICAAAGGGAGGIAIGAIGAIIGIATIAIAGIAIIC 2271 2272 TAYAACYGGGTCTTCTTGAYGGAGAGAAAGAAGAAATATTTGGAGIAYGCTYGGAGGAGS 2331 2170 OCOCIACOTISCONCANIACETCACATECTCAAAOCCETACAAGTECCTAGTICA 2229 2342 CONTITACHBATED COBSESSANIA CONTINUACION ESANGASTECATATAAATT 2451 2356 GIGAALCAILGAGACTECEGAAABILGCAGAAAIAAAIAAAIGAGAIGGIAFGIAAAGA 2409 2710 AGGILCIGITIALGGCCACATITAATATCTTCAGCTCTTTTTGLGGAIATAAAAYGTGCA 2769 2932 GATGFAATTGTTGGGGGAATTGTAGGTAATGTTAGAAATGTTAGTCATTGTATATAACA 2991 2830 AGATIGAAAAIGITGIGIAAAIGCGGCCATITAAAAAGITGIAGCAGAITGITTCCGGT 2889 1912 THCCAGAGCCAGAAGCCATTGAAATGTAGCTGTTTGACTGTTTTATAAAAAAGTGTAI 1971 1870 TTAGAACATATCAICTGGAAAAATTTTTAGGAGGGGTGGTGGAGAATGAGTATGAACTAA FG 1429 2110 TATAACTCGGTCTTCATGCAGAGAGTGAAACAAATAITITGCAGTATGCTTCCAGCAGG 2169 2932 COCCITACITATON NATACOTONIANTECTORANGOCOTTACAMITACOTAGELCA 2691 2530 AAATTTCAGCAGAACTGGGAGAAATGACTTGTAGTGGAAGAGGAATGCAAAAGGAAAAA 2589 2590 ATGAATGAFAGPAFAGATAPPTPAAAGAAGGAAGAAATGAGGAFFFFAQAGGAFFFF 2650 GGACACTGTACACTCTGGATTCALGGCTCTCTCGACAGALGTGACTGTATAACTTTGCC 2709 2872 AGGTTOTGTTATGGCCACATTAATATCTTCAGGTCTTTTTGTGGATATAAAATGTGCA 2931 2770 GATGCAATTGTTTTGGGTGATTGCTAAGGGAATTGTTAGAAATGTTAGTGATTGTTATTATACA 2829 2152 AATATAGACTTAAAATICAAAATCAFIGTAAA'AGCALAGAAGGACTTOOLOGIGATTT 1990 AATATAGACTIIAAAITCAAAAFCAIIGIAAACAGAIACAAGGAICIFCCICAIGGIT 2290 FTAGAAGGETTGGGAAGATCAAGAAAAAATGAGTGGAAGAAGAAGAATGTTAGTATTAATT 2752 ATGAATGATAGCATGGATACCLCAAACAAGGAAGAAAATGAGGATCTCAGGACCTIGGT . qa --ò 3 ŏ QQ õ qq ô 습  $\delta$ QQ q a οy a q g δ ŏ ŝ

Tue Jan 21 10:02:46 2003

```
2960 TAANYARRA TELEFORM TACTION OF THE STATE OF THE STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8190 SATITATITATAGATGASATGISATATAGIGISGITGITTATAAAAITITGITT 4249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2890 PCAAAGIAAAAIIGCIGIGCIIIAIGGAFAGIAAGAAIGGCCC AGAGIGGGAGFCCIGA 2949
                                                                                       8052 CCAAASTAAAATTGGTGTGTTTATGGATAGTAASAATGGCCCTAGAGTGGGAGTCCTGA 3111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4242 GTGCTAFCTAFGTFGCAAAFGCAATFFGAFFGACTGCCCAFFCACGAAAFTAFCCFGAA 3291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41.40 CPCD LCLGCAAAAA LGGA LATTALTAGAAA TRAGAAAATTAG FAATTTTAGACATTA 3189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    352 GALITTALITTIACIATICGAAICIGALAFACIGTGTGTTGTTTTALAAAATITTGCFFF 3411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1250 TAATTAAATAAAAGCTGGAAGCAAAGTATAACCATACGATACTACTACTGAAAGA 3309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4412 TAATTAAATAAAAGCTGGAAGCAATAAACCATATGATACTATGATACTATGATACTACTAGAAACA 3471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3310 GALITCALACCICAGAAFGIAAAAGAACITACIGAFFFFFFFFFFFCAFCCAACTTATGTF 3369
                                                                                                                                                                                                                                                                                                                                                                                      9010 TGTTTTTATTATATATATGTATATTTTTTAATTTAACATGAACACCTTAGAAAAIGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8070 GPCCLATCTATCTTCCAAALGCAATTIGACTGACTGACGATTCACCAAAATTATGCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             His, Shi-Xose
Benedict, William F.
Zhou, Yunli
IIILE OF INVENTION: MODIFIED RELINGHIASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
REFERENCEZINGKET NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OPERALING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18M PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 22 Dec 1999
CLASSIFICATION: *Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3370 TITAAATGAGGATTAITGATAGT 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 32, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4542 ITTAAATGAGGALLAFTGALAGE 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   · Huknown -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SHOURNORS: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Xu. Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No. USZ0020151461Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CILY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08 09 469 522 42
                                                                                       £
     5
                                                                                                                                                                                                                                                                          ÷
                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \frac{\tilde{\Xi}}{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
```

```
4 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          609 TAAAGAACAIGAAIGIAAIATAGATGAGGIGAAAAAIGITIATIIGAAAAAIIIIIAIAGG 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      798 TAAACGATACGAAGAAATITATCTTAAAAATAAAGATCTAGATGCAAGALTALLELGGA H57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            78 GGAGAAAGITIFATCHGIGGAGTATIGGGAGGITAIRTFAAAAGAAAAAAFF 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                              318 GTTTGCACTCFTCAGGAAATTGGAAAGGACALGTGAACTFALALTTGACACAAAGGGG 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               309 CAGTTCGATATCTACTGAAATAAATTCTGCATTGGTGAAAAAGTTTGGATCACATTTT 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   438 TTTATTAGCTAAAGGGGAAGTATTAGAAATGGAAGATGATGTGGTGATTLGATTLGAGTT 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              498 AATGCTATGTGTCTTGACTATTTTATTAAAGTCTCAGCTGGGATGTTGGTCAAGAAC. 557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       618 CAGGAGTGCACGGATAGCAAAACAACTAGAAATGATACAAGAHTALLGAAGTLCHCHG 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         549 CAGGAGTGCACGGATAGCAAAACAACTAGAAATGATACAAGAATTATTGAAGTTCTCTG 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                678 TAAAGAACAIGAATGTAATAIAGATGAGGIGAAAAATGITTAITTGAAAATTITALAA? 737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           738 ITTTAIGAATICTCTIGGACTIGTAACAICTAAIGGACTICCAGAGGIIGAAAAICTITC 797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   138 GYGGGGAATCYGYAYCYTTAYYGCAGCAGTTGAGGTAGATGAGAFGTGTCGT F/ACYTTYAC 197
                                                                                                                                                                                                                                                                                                                                  (Pdbs
                                                                                                                                                                                                                                                                                                                                                                                                       249 GTFTGCACTCTTCAGCAAATTGGAAAGGACATGTGAAGTTATATATTTGACAAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          378 CAGIICGAIAIIAGIAAAIAAAIIGIGCAIIGGIGCIAAAAGIIFCIIGGAICACAII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      258 TGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAGTATGATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       198 TGAGCTACAGAAAAACATAGAAATCAGTGTCGATAAATTCTTTAACTTAAAAGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                                                                                                                                                                                                                                        97.7%; Score 3315; Ids 10; Length 3323; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                       lade ls
                                                                                                                                                                                                                                                                                                  100.0%; Pred. m...
                                                                                                                                                                                                            LOCATION: 7, 2559
SEQUENCE DESCRIPTION: SEQ 1D NO: 32:
TELECOMMUNICATION INFORMALION:
                IELEPHONE: $12/418-3000
TELEPRA: $12/474-7577
INFORMATION FOR SEQ. ID NO: 32:
SEQUENCE CHARACTERISTICS:
                                                                                             LENGIH: 3323 base pairs
                                                                                                                                 STRANDEDNESS: single
                                                                                                             IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                            Matches 3315; Conservative
                                                                                                                                                      TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                                                 US-09-469-522 32
                                                                                                                                                                        FEATURE
                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <del>2</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
```

848 977 908 1037	.028 157 088 217	1277 1208 1337 1268	.328 .457 .388 .517 .448	577 508 637 568 697	537 628 757 688 817 748	1808 1937 1868 1997 1928
ICATGATAAAAGTCTTCAGACGGATCTATAGACAGTTTTGAAACACAGAGAACACGACGAAAAAGTAAAAAGTAAAAAGTGAAGAACAGATTAGAAAAAAAA	AAATCTGAFTTCCTATTTTAACAACTGCACAGTGAATCCAAAAGAAAGTATACTGAAAAG LIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	AUCCAUGUTAAATCAGAAGAACAACTATTTACCAATTTTAGCAAACTTCTGAA AUCCATGUTTAAATCAGAAGAACGATTATCCATTCAAAATTTTAGCAAACTTCTGAA IGCCATGUTTAAATCAGAAGAAGAACGATTATCATTCAATTTTAGCAAACTTCTGAA IGACAACATTTTTCATATCTTTATTTTGCGTGCGCTCTTCAAATTTTAGCAACATTTTTIII IGACAACATTTTTCATATCTTTTTTTTTTTTTTTTTTTTT	LAGGAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTTGTTTTTTTT	GGAAICCCTGCATGGCTCTCAGATTCACCTTTATTGATCTTATTAAACAATCAAGGA 111111111111111111111111111111111	HALL A ACHA AG AGA AGA TOTALLI ILLI ILLI ILLI ILLI ILLI ILLI ILLI	CTATCHCCGGCTAAATACACTTTGTGAAGCCTTCTGTCTGGGGGGGG
789 418 844 478 409	2	1238 1238 1239 1338	1259 1329 1329 1458 1389	1518	1569 1448 1429 1758 1684	1818 1744 1809 1938 1938
a 3 a 3 a	8 8 8 8 9 8	ਨੇ ਜ਼ਿੰਨੇ ਜ਼ਿੰਨੇ	a 5 a 5 a	3 8 3 8	\$ 1 5 1 5 1 E	8 8 8 8 8

```
2109 CTIGITALITATIA HARANGA MARANGA MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2349 GCTCAAAAGAAGTGCTGAAGGAAGCAACCCTCCTAAACCACIGAAAAAACIACGCTTIGA 2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2058 ATTCAAACGTGTTTTGATCAAAGAAGAGGAGTATGATTCTATAAAAGAAGTG 2117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2298 PCFCCCAACAACAAAAAFGACFCCAAGAAFGAGAAFCTFAGFAFGAAFFGGFGAAFC 2357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2358 ATTCCCGACTTCTCACAAGTTCCASAAATAAA1CAGATGGTATGTAACAGCGACCGTGT 2417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2478 TAPPGAAGGATGAGAFGAAGCAGATGGAAGTAAACATGTGGGAGGAGAGTGGAAATLIGA 2537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2409 TATTGAAGGATCAGATGAAGCAGAAGTAAAGTAAACATGCCCAGGAGAGTCCAAATTTCA 2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2658 TGTAGAGGTGTGGATTGATTGTGTGTGAGATGTGAGTGTATAAGTTTGCGAGGTLGTG 2717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2709 IGITISGGIGALICCIAAGCCACIIGAAAISIIAGICATIGITATIIAIACAAGATICAA 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8018 TEANTEMATEMATEMATEMATEMATEMACATGAACACCCTTAGAAAAGGGGCAAAG 3377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2949 ITAATTIAIAIGIATATTITITAATIITAACAIGAACACGCTIAGAAAAIGIGICCIAIC 3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2598 TAGGATGGATACTCAAAAAAAAAAAAAATGAGGATGTCAGGAGGTTGGTGGAGAGTG 2657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2718 IIIAIGGCCACATIIAAIAICIICAGCICIIIIIGIGGAIAIAAAAIGIGCAGAIGCAAI 2777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2778 IGTITGGGTGATICCTAAGCCACTIGAAAIGIIAGICAIIGFTAITIAIACAAGAIIGAA 2837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2838 AATCHTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCAGATTGTTTCCTGTTCCAAAGTA 2897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2769 ANTOTIGICAANTOOTGOONTITAAAAAGIIGIAGGAGATIGIITOOTGIIGGAAAAAA 2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2898 AAATTGFTGTGTGTATAGAIAGTAGAAFGGGGGGGGAGTGGGGAGTGFTAATAAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2169 GATPPFTGGGGGGGAAFATGTATATATTTPAPPFTGAAGAGGCGAAATATAAAATTTCAGAAAGG
1998 CCTIAAAIICAAAAICAIIGIAACAGCAIACAAGGAICIICCICAIGCICIICAGGAGAC
                                                                                                                                                                                                                                                                                                                             2649 TTTTATGGCGACATTTAATATCTTCAGCTCTTTTTGTGGATATAAAATGTGGAGATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2178 FIGGRACANIACTCACATEGICSAASCCIIACAASIIICCIASTICACCTIAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2238 GATICTEGROCHMANATTATTICACCCTCANGACTCCAINIANAALITCAGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   λο. aa
                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Οÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     υb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
```

Tue Jan 21 10:02:46 2003

US-09-469-522-34

.. C

```
HILLITELLE HELLELLE HELLE HELL
1078 TATCLLGCAAALGCAATLLGALLGACLGCCCATLCACCAAAATTALGCTGAACTCTTCTG 3137
                                                                                                      3009 FATCHTCCAAATGCAATTTGATTGACTGCCATTCACCAAAATTATCCTGAACTCTTCTG 3058
                                                                                                                                                                                                             41.49 CAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTAACATTAGATTTAT
                                                                                                                                                                                                                                                                   4198 TITACTATIGGAATCIGATATACTGIGGCTIGTTITATAAAATTITGCTITTAATTAAA 3257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4129 TITACTATTGGAATCTGATATACTGTGTGCTTGTTTATAAAATTTTGCTTTTAATAAAA 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4258 TAAAAGCTGGAAGCAAAGTATAAGCATATGATACTATACTAGTGGAAGAACAGTTTCAT 3317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3318 ACCTCAGAATGTAAAAGAACTTACTGATTATITICCTCCAACTTATGITTTTAAATG 3377
                                                           Benedict, William F.
Zhon, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCEZDOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LAMATTON: 7, 2502
SEQUENCE DESCRIPTION: SEQ TO NOT 34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 44, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGIH: 4266 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILLING DATE: * Unknown.>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Xu, Hong .Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1478 AGGATTATTGATAGT 1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4309 AGGATTATTGATAGT 4323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. USZ0020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       I ELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09 469-522 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
```

```
976 GTTATGAACACTATCCAACAATTAATGATGTTTTAAATTCAGGAAGTGATGACCTTCA 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1096 AGAGTGAAGGATATAGGATACATCTTTAAAGAGAAAATTTGCTAAAACTGTGGGACAGGGT 1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          036 GAAAATCEGATTEGCTATTETAAGAACEGGACAGEGAAFCCAAAAGAAGEALACEGAAA 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           790 CGAAAAAGTAACCTTGATGAAGAGGTGAATGTAALTGCTGCACACTCCAGTTAGGACT 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       850 GITATGAACACIATGCAACAATTAATGATGATTTTAAATTCAGCAAGTGATGAACTTTA 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           910 GAAAATCIGATTICCIATITIAACAACIGCACAGIGAALCCAAAAGAAGIATACTGAAA 969
                                                                                                                                                                                                     196 ACTGAGCTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAAAA 255
                                                                                                                                                                                                                                                   256 ATTGATACCAGIACCAAAGITGAIAAIGCIAIGHCAAGACHGIIGAAGAAGIAHGATGTA 415
                                                                                                                                                                                                                                                                                                                                                         130 ATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTA 189
                                                                                                                                                                                                                                                                                                                                                                                                          316 TTGTTTGCACTCTTCAGGAAATTGGAAAGGACATGTGAACTTTATATATTGGACACAGAAACCC 375
                                                                                                                                                                                                                                                                                                                                                                                                                                        376 AGCAGTTCGATATCTACTGAAATAAATTCTGGATTGGTGCTAAAAAGTTTCTTGGATGACA 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     436 TTTTATTAGGTAAAGGGGAAGTATTACAAATGGAAGATGATGAGGGGGGGTGATTTCATTTCAG 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        310 TITITATTAGGTAAAGGGGAAGTATTAGAAATGGAAGATGTGGGTGATTTCATTTCAG 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 556 CCATATAAAACAGCIGITATACCCATTAATGGTTCACCTCGAACACCCAGGCGAGGTCAG 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              616 ARCAGGAGIGCACGGAIAGCAAAAACAACTAGAAAAIGATACAAGAATTATIGAAGITCIFC 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               490 AACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               676 TGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTTATAAAAATTTTTATA 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    736 CCTTTTAIGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTT 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          796 TCTAAACGATACGAAAATTTATCTTAAAAATAAAAGATCTAGATGATGATATTTTG 855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   856 GATICATGATAAAACTCTTGAGACTGATTCTATAGACAGTTTTGAAATACAGAGAAAAGA 915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               730 GATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGACACA 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                916 CGAAAAAGTAACCTTGATGAAGAGGTGAAGGTAATTCCTCCACACACTCCAGTTAAGACT 975
                                                                                                    136 CTGTGGGGAATCTGTATCTTTATTGCAGTTGACCTAGATGTGAGTGTCGTTGACTTTT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  250 ACCAGTTCGATATCTACTGAAATAAALTCTGCATTGCTAAAAGTLTCTTGGATCATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         496 TTAATGCTATGTGTGCTTGACTATTTTTAAACTGTGAATGCAATGTTGAAAAAA 555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      550 TGTAAAGGAACATGAATGTAATATAGATGAGGGGAAAAATGTTTATTTGAAAAATTTTATA 609
                                                              Science
                                                                                                                                                    10 CTGTGGGGAATCTGTATTTTATTGCAGTTGACCTAGATGAGATGTCGTTCACTTTT 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96.0%; Score 3257; DR 10; Length 4266; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                      Missial ches
  96.05,
100.08; Pre
                                                   Conservative
                        Best Local Similarity
Matches 3257; Cossery
  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : 0y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43
:
                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                     <u>q</u>
                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
```

TG 121 IG 108 IG 127 IG 114 CA 133 CA 133	139 126 145 132 151 151	157 144 163 150 169	GCANCCTCAGG 1755	m C m (C 10 0)	211 198 217 204 223
SAAAIISAA POACACATACAAACIIGAAGIICGEIIGIAIIN ELHIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	TATAGCAGAACTACATCTCAAATCTTGALLCGGAACAGATTGTCTTTCCCAGGGATT  I I I I I I I I I I I I I I I I I I	AT GRANT CONTROL TRANSPER AND TRANSPERANCE TAIT AND CANAGE AT TANGET AND AND CANAGE AT THE STAND CANAGE AND THE STAND CANAGE AND THE STAND CANAGE AND CONTROL OF THE STAND CANAGE AND CONTROL OF THE STAND CANAGE AND CONTROL OF THE STAND CONTR	66 FCAACTAGGGGTGTAATICTACTGCAAATGCAGAGACAAGCAAGCACCGGGCTTCCAG 175 [117]   111	CATATCATCTGGACCTTTTTCAGGACCTGGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG	ACTICAANGIGITITICATCAAGAAGAAGAGTAIGATUTTATTATAGTATTCCAANGIGITITITITITITITITITITITITITITITITITIT
STOTE STOTE STOLE AATCE ATGAC ATGAC	TATAGCAGA HITITITI HATAGCAGA CTGAATGTG CTGAATGTG CTGAGAGGGGGGGGGG	ATGGAATC 11111111111111111111111111111111111	TCAACTACG 11111111 CCAACTAGG ACCAGGAGG ACCAGGAGG ACCAGGAGG ACCAGGAGG ACCAGGAGGAGG ACCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGA	CATATCATC (1/1/1/1) CALALCATC CALALCATC AGGCATTTG AGGCATTTG AGCCATTTG AGCCATTTG AGCCATTTG AGCCATTTG AGCCATTTG AGCCATTTG AGCCATTTG AGCCATATAG AGCCATACAAA	ACATTCAAA ACATTCAAA COGTCTTC COGTCTTC COGTCTTC ACCTGTCA
154 030 216 090 276 150	33 23 23 45 45	1516 1390 1576 1450 1636 1510	1696 1570 1756 1630 1816 1690	1876 1750 1946 1810 1896 1870	2056 1930 2116 1990 2176 2050
5 f 5 f 5 f	6 4 6 4 6 4 6 4 6 4 6 6 6 6 6 6 6 6 6 6	5 9 5 9 5 9 5 2 5 9 5 9	5 f 5 f 5 f	6 6 6 6 6	3 3 3 3 3 3

2469 2236 CGGAITCCIGGAGGGAACAICIAIAIIICACCCCIGAAGAGICCAIAIAAAAITICAGAA 2295 2110 OGGATTOCTOGAGGGAAGATGTATTTTGAGGGGTGAAGGGGCATATAAAA; 110AGAA, 2169 2296 GOTOTOGAAAAQAAAAAAAAAAGAGTOCAAGAATGATAAGTAYGAATTGGTGAA 2355 2656 IGIGIACACCICIBGALICALIGICICICACAGAIGIGACIGIAIAACITICOCAGGIIC 2715 2590 TGTTTATGGGGAATTTAAFATGTTGAGTGTTTTTGTGGATATAAAATGTGGAGATGGA 2649 2476 GATRITTGAAGGATCAGATCAACCACATGCAACTAAACATGTGCAGGAGAGTCGAAATTT 2535 2536 PAGPAGAAAGTGGGAGAATGAGTTGTAGTGGAAGAGGAATGGAAAAGCAGAAAATGAAT 2595 2470 GATACCATCCATACTCAAACAAGGAAGAAATGAGGATCTCAGGACCTTGGTGGACAC 2529 2716 TGTTTATGGGGAGATTTAATATGTTCAGGTGTTTTTGTGGATATAAAATGTGCAGA1GCA 2775 2776 AIIGIIIGGGTGATICCTAAGCCACTGAAAIGIIAGICATTGTTATTATACAACATTG 2835 2836 AAAATICTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCAGATTGTTTCCTGTTCCAAAG 2895 2710 AAAATCTIGTGAAAAGCTGCACATTTAAAAAGIIGIAGCAGATTGIIQCIGGIIGGAAAG 2896 TAAAATTIGGTGTGTTTTATGGTTAGTAAGAATGGCCCTAGAGTGGGGAGTCCTGATAATGG 2955 2956 AGGOCHGTOTGACTACTTIGCTTTTGTAGCATATAGGGTGATGITTGCTCTTGTTTT 3015 3016 TATTAATTTTATATTTTTTTTTTAATTTTAACATGAACACCCTTAGAAAATGTGTGTA 3075 3196 ATTTTACTATTGGAATGTGATATACTGTGTGTGTTTTATAAAATTTTGGTTTTAALIA 3255 3130 AATAAAAGCGGAAGCAAAGTATAACCATATGAFACTATACTAGTGAAACAGALLIG 3189 3316 ATACCTCAGAATGTAAAAGAACITACIGAITATTTTCIICATCCAACTTATGTTTTTAAA 3375 2890 TATTAATTTATATGTATATTTTTAATTTAAGAIGAAGAGGGGTIAGAAAAIGIGGGA 2949 3076 TCTATOTACCAAATGCAATTTGACTGGGGGALTGAGGAAAATALGGGGAAACTG 3135 2950 TCTATCTTCCAAATGCAATTTGATTGACTGGGGAALHGAGGAAATTATGCTGAAGTG 3009 3136 TGCAAAAAIGGAIATIATIATAGAAATIAGAAAAAAIGCIAATITIACACAITAGATITI 3195 3010 TGCAAAAATGGATATTATTTAGAAATTAGAAAAATTTACTAATTTTAGACATTAGATTTT 3069 3256 AATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATTACTACTGAAACAGATLL/ 3415 2176 GGTOTGAPAAATAAAAATGACTOGAAGATCAAGAATGTTAGTATGATGAAA 2416 GTGTTTAAAAAAAGTGTTGAAGGAAGGAACGCTGGTAAAGCGACTGAAAACTACGCTTT 2350 GATATTGAAGGATCAAGTGAAGTAAGAGAASTAAAGAAGTAACAGAAGTTT 2410 CAGMAGAAAMWGAAAAWGAGTWGWACTGGAACAGGAAWGGAAAAGGAAAA 2356 TCATTCGGGACTTCTGAGAAGTTGGAGAAATAAATGAGATGGTATGTAAGAGGGACTG qq Op ΩD ó 8 ô q ò ò 5 οy QC Ωp õ

```
1239 AGAAMGATTATMATTMAAAATTTTAGMAAMTTMTGAATGAMAAMTTTTTOATANGGT 1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1170 AGAACGATTATCCATTCAAAATTTTAGCAAACTTGGAALGACAAGATTTTGATATGTC 1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1299 ITTATIGGGGGGGCTCTIGAGGTIGTAATGGGGACATATAGGAGAAGTACATGTGAGAA 1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1359 TCTTGATTCTGGAACAGATTTGTCTTTCCCATGGATTCTGAATGTGTTTAATTTAAAAGG 1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1059 CAACTGCACAGTGAATCCAAAAGAAAGTATACTGAAAAGAGAGGATATAGGATACAT 1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1119 CITIAAAGAGAAATIIGCIAAAGCIGIGGACAGGIIGIIGIGGAAATIGGALCACAGG 1178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1179 ATACAAACTTGGAGTTGGCTTGTATTACCGAGTAATGGAATGCATGGTTAAATCAAAAA 1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      999 AATGATTTTAAATTCAGCAAGTGATCAAGCTTCAGAAAATGTGATTTGGTATTTAA 1058
                                                                                                                                                                                                                                                                                               270 GGAAAGGACATATATATATATATATAGACAGCAGTYGGATATGTGAAAT 329
                                                                                                                               459 AFFACAAAFGGAAGAFGATCTGGFGAFFTFCAFFFFCAGTFAAFGCFAFGTGFCFFFGACTA 518
                                                                                                                                                                                                                                    390 ATTACAAATGGAAGATGATCTGGTGATICAIICAGIIAAIGCIAIGIGLGGLGATGAGA
                                                                                                                                                                                                                                                                                                                                                             579 CATTAATGGTTCACCTCGAACACCCCAGGCGAGGTCAGAACAGGAGTGCACGGATAGCAAA 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      570 ACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGT 629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        759 TGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATACGAAGAAATTTA 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      690 TGTAACATCTAATGGACTTCCAGAGTTGAAAATCTTTCTAAACGATACGAAGAAATTTA 749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  819 TCTTAAAAATAAAGATCTAGATGCAAGATTATTTTGGATCATGATAAAACTGTTTAGAC 878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    879 IGATICIATAGACAGIITIGAAACACAGAGAACACCACGAAAAAGTAACCTIGAIGAAGA 938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     939 GGTGAATGTAATTUUTUUAUAUAUTUUAGAGTTAGGACTGTTATGAAQACTATATAAATT 998
                                                                                                         399 AAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACATTTTTATTAGCTAAAGGGGAAGT 458
                                                                                                                                                                                                                                                                                                                                                                                                                                              639 ACAACTAGAAATGATACAAGAATTATTGAAGTTCTGTAAAGAACATGAATGTAATAT 698
                                                                                                                                                                                                                                                                         519 ITTTATTAAACTCTCACCTCCCATGTTGCTCAAAGAACCATATAAAACACGTGTTATAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                699 AGATGAGUTGAAAAATGTTTATTTCAAAAATTTTATACCTTTTATGAATTCTTGGAGT
                        339 GGAAAGGACATGTGAACTTATATTTGACAAACCCAGCAGTTCGATATCTACTGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              750 TCTTAAAAATAAAGATCTAGATGCAAGATTATTTTTGGATCATGATAAAAACTCTTCAGAC
                                                                                                                                                                                                              qu ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
vo
                          ò
                                                               9
                                                                                                                                              q
                                                                                                                                                                                          ò
                                                                                                                                                                                                                                  김
                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ö
4190 ATACCTCAGAATGTAAAAGAACTTACTGATTATTTCTTCATCCAACTTATGTTTTTAAA 3249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      210 TANTGETATGTCAASACTGTTGAAGAAGTATGATGGATTGGTTGCACTAAAAT 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               159 TGCAGCAGTTGACCTAGATGAGTTCGTTTCACTTTTTACTGAGCTACAGAAAACATAGA 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    279 FAATGCFATGFCAAGACFGFGAAGAAGTAFGATGFATTGTFFFGTFFGCFCFFGAAATT 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     219 AATCAGIGIOSAIAAAITOITIAAGITACITAAAAAAATIGATASSAGTAASAAAGITGA 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        150 AATCACTCCATAAAFTCTTTAACTTACTAAAAGAAATTGATACCAGTACCAAAGTTGA 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0, Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95.1%; Score 3226; DH 10; Longth 3323; 99.8%; Pred. No. 0; ive 0; Mismatches 5; Indels 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469.522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 7..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UT)
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                               Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                          Sequence 38, Application US/09459522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: *Unknown>
AFTORNEY/AGENT INFORMATION:
NAME: HIBLET, DAVID W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 512/416 ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: nucleic acid
STRANDHDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                             3376 ICAGGALTALTIGALAGI 3392
                                                                                                     3250 TGAGGATTATTGATAGT 3266
                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                         APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                               Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 1229; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               77210-4433
                                                                                                                                                                                                                             Pateur No. HS20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE
                                                                                                                                                                                    US 09 469 522 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09 469 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ouery Mateh
                                                                                                                                                                    RESULT 8
                   <u>1</u>2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                               22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
```

7 0 0 0 0 1 1 8 1	4 -+ 10 -5 -5 -10 -6 -61 -10	1889 2018 1949 2078 2009 2138 21069 2129 2129 2258 22189 2318 2249 2378 2378 2378	2448 2429 2438
CTTICALTITTACAAAGTGATCGAAAGTTTTATCAAAGCAGAAGGCAACTTCACAAGAGA CTTICALTITTACAAAGTGATCGAAAGTTTTATCAAAGCAGAAGGCAACTTCACAAGAGA AATGATAAAAACATTTAGAACATCGAAACAAGCAGAAGCAACATCACAGAGA AATGATAAAAACATTTAGAACATGGAATCATGGAATCCTTGATGATAAAAACATCATGAATAAAAAAGAATCATGAATCATGAATAAAAAAAA		CONCRECCES CANDERS OF THE CONTROL OF	AAAAAY TAVAYTTTGATATTIGAAAAAAATVAAA 
1419 1350 1479 1539 1530 1530 1530	50 50 79 70 70 70	30 30 30 30 30 30 30 30 30 30 30 30 30 3	2439 2370 2499
cy cy cy cy cy cy cy cy cy		4 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	áo da

```
2559 IICIACICGAAGAGGAATGGAAAAGAAAAAIGAAIGAAIAGAIGGAIAGCICAAACAA 2618
                                                                                                                                                 2619 GGAAGAGAAAWGAGGATCTCAGGACCTTGGWGGACTGWGWACACCWGWGGAYYGAYYG 2678
                                                                                                                                                                                                                                 2679 TCTCTCACAGATCTGACTGTATAACTTTCCCAGGTTCTGTTTATGGCCACATTTAATAIC 2738
                                                                                                                                                                                                                                                                                                                                             2730 ACTIGAAATGTTAGTCATTGTTATTTATACAAGATTGAAAATCTTGTGTAAATCCTGCCA 2789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2850 AGVAAGAATGGGCCCTAAGAGTGGGAATGCTGATAAAAAGGGGGTGTGGAGYACTTAAGAT 2909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2490 TTCTACTGGAACACGAATGCAAAAGCAGAAAATGAATGATGATAGGATAGCTGAAACAA 2549
                                                                                                                                                                                                                                                                          2610 TCTCTCACAGAIGIGACTGTATAACTTTCCCAGGTTCTGTTTAATGGCCACATTTAATATC 2669
                                                                                                                                                                                                                                                                                                                                                                                                         2799 ACTTGAAATGTTAGTCATTGTTATTTATACAAGATTGAAAATCTTGTGAAAATCCTGCCA 2858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3099 IIGACTGCCCATFCACCAAAAIIATCCTGGAAAAAAGGGAAAAATGGAAAAAAAGGAIATIAGAA 3158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3030 TTGACTGCCCATTGACAAAATATCCTGAACTCTTCTGCAAAAATGGATATTATTAGAA 3089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3159 ATTAGAAAAAATTACTAATTTTACACATTAGATTTTATTTTACTATTGGAATCTGATAT 3218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3279 AACATATGALAGTATATATACTGAAACAGATITCATACTCAGAATGTAAAGAACT 3338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3039 TTAATTTAAGATGAAGAGGGTTAGAAAATGTGTCTATCTTGTTGCAATTGCAATTTGA 3098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3090 ATTAGAAAAATTACTAATTTTACACATTAGATTTTATTTTACTATTGGAATCTGATAT 3149
2430 AGATGGAAGTAAACATCTCCCCAGGAGAGTTTCAGGAGAAAACTGGGGAGAAATGAC
                                                                                                                                                                     2550 GGAAGAGAAATGAGAATCTFAGGACCTFGGGGAAAATGTGTATTTTTTTGAGATCTTTGAGACATTG
                                                                                                                                                                                                                                                                                                                        2739 IICAGCTCITITIGIGGAIAIAAAAIGIGCAGAIGCAATIGITIGGITTAGGGGALGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2790 TITAAAAAGIIGIAGCAGATIGITIGCTCTTCCAAAGTAAAATIGCTGCTTTAAFGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2919 ASTAAGAATGAGTTAGAGTGAGAATTTTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3219 ACTGEGETGTTTTTATAAATTTTGCTTTTAAATTAAATAAAACCEGGAAGCAACTAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3339 TACTGATTATTTTCTTCATCCAACTTATGTTTTTAAATGAGGATTATTGATAGT 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: MODIFIED RETINGELASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3270 IACTGATTATTTCTTCATCCAACTTATGTTTTTAAATGAGGATATTGATGT 3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 40, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 9
                                                                                                                                                                                       덩
                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                      ó
                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δà
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QΣ
```

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           526 AAATTETEACTECCATGTTCTCAAAGAACCATATAAAACAGCTGTTATACCCATTAAT 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   456 ALGSARGALGALFTGGLGALLTFALTTGALTAALGFTATGTGFGGTTGAFFAFT 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           595 AAACHCICACCICCCATGTTGCFCAAGAACCAFAAAACAGCIGFFAFACGCAFFAAT 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            166 OLFOACCTAGA EGAGA FGLOGT FOACT TITLACT GAGGI ACAGAAAACAT AGAAATCAGT 1225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   286 ATGUCAAGACIGIIGAAGAAGKAIGAIGARGIITGGAGKCTTCAGCAAAFGGAAAGG 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 455. ATRITICAAGACTGTTGAAGAAGTATGATGTATTGTTTGCACTCTTCAGCAAATTGGAAAGG 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               446. ACA ICH GAACH TATATATATA ACGAGCAGH CHCCGATATCH CHGAAATAAATHCH 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                406 GEATTGGTGGTAAAAGFFFGTTGGAFGAFFFFTTAFFAGTTAAAGGGGAAGTATTACAA 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5.45 ATGGANGATGATGTGATTTGAGTTAATGGTAATGCTTGAGTGTTTTATT 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    235 GLOGACCIAGA IGAGA IGICO I I CACITI I ACTGAGGAAAAAAAAAA I AGAAA I CAGT | 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  295 CH COATAAATHGTTTAAACHT AGTAAAAGAAATHGATAGGGAAGGTGGATAGCTTGATAATGCT 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  226 GTCCATAAATTGTTTAACTTACAAAAGAAATTGATACCAGTACCAAAAGTGATAATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95.1%; Score 3225.4; DB 10; Length 3461;
100.0%; Pred. No. 0;
1ive 0; Mismatches 1; Indels 0; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/469,522
FILING DATE: ZZ DOC-1999
CLASSIFICATION: -Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
ADDRESSEE: Arnold, White & burked
                                                                                                                                                                                     COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: 0.155
LOCATION: 7.02697
SEQUENCE DESCRIPTIONS SEQ. 10 NOS 460
                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 41,071
                                                                                                                                                              MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IELEPHONE: 512/418 4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 4461 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                   ALIORNEY/AGENT INFORMALION:
NAME: Hiblor, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                 FILLING DATE: + Unknown>
                       SIREEL: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PELEFAX: 512/474-7577
                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 40;
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IYPE: nucleic acid
                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PoPoLoGY: linear
                                                                                                                   77210 4444
                                                "ITY: Houston
                                                                                            COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US 09 469 522:40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches (226)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ت
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      =
```

```
1665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1495 TTTT ACAAAGTGATCGAAAGTTTT AT CAAAGCAGAAGCGAAGTTGAMAAAAAAA GATA 1554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1666 TCTCCTGTAAGATCTCCAAAGAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAAT 1725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1726 GCAGAGACACAAGCAACCTCAGGCTTCCAGAAGCAATGAAATGTAGTGTGTT 1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        946 GTAATTCCTCCACACACTCCAGTTAGGACTGTTATGAACACTATCCAACAATTAA FGATG 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1006 APTTFAAATFFCAGCAAGFGATCAACCTFCAGAAAATFFGGAFTFFCFFATFFTAACAACTGG 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1075 ATTTTAAATTCAGCAAGTGATCAACCTTCAGAAAATCTGATTTCCTATTTTAACAACTGC 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1066 ACAGIGAAFOCAAAAGAAAGIAIAGAAAAGAGAGAGAIAIAGAATACAFCTTTAAA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1125 GAGAAATITGCIAAAGCIGIGGGACAGGGIGGGGIGGAAAIIGGALCACACAAAAAAA 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1246 TTATCCATICAAAAIIIIAGCAAACIIGIGAAIGACAACAIIIIIGAIAIGIGTGTTTATTG 1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1306 GCGTGCGCTCTTGAGGTTGTAATGGCCACATATAGCAGAAAGTACATCTCAGAATCTTGAT 1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1366 TCTGGAACAGATTTGTCTTTCCCATGGATTCTGAATGTGCTTAATTTAAAAGGGTTTGAT 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1435 TCTGGAACAGATTTGTCTTTCCCATGGATTCTGAATGTGCTTAATTTAAAAGCTTTGAT 1494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1426 TTTTACAAAGTGATCGAAAGTTTTATCAAAGCAGAAGCAACTTGACAAGAAAAATA 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1486 AAACATTTAGAACGATGTGAACATCGAATCATGGAATCCCTTGCATGGCTCTCAGATTCA 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1735 TCTCCTGTAAGATCTCCAAAGAAAAAGGTTCAACTAGGCGTGTAAATTCTACTGCAAAT 1794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          886 ATAGACAGTTTTGAAACACAGAGCACGACGAAAAAAGTAACCTTGATGATGAAGGGTGAAT 945
         646 GAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAAGALGAATGTAATATATGTGG 705
                                                                                     715 GAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAGT 774
                                                                                                                                                                               706 GTGAAAAATGTTTATTTCAAAAATTTTATACCTTTTATGAATTCTCTCTTGGACTTGTAACA 765
                                                                                                                                                                                                                        HITTELLITELLEGATION OF THE PROPERTY OF STANDARD OF THE PROPERTY OF THE PROPERT
                                                                                                                                                                                                                                                                                                                                                 266 TCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACATACGAAGAAATTTATCTTAAA B2S
                                                                                                                                                                                                                                                                                                                                                                                                                              835 TOTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATACGAAGAAATTTATCTTAAA 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         895 AATAAAGATCTAGATGCAAGATTATTTTTGBATCATGATAAAAACTCTTCAGACTGATTCT 954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  826 AATAAAGALCTAGATGCAAGATTATTATGGATGATAAAAAGTCTTGAGGTGGTGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ζō.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                          q
                                                                                                                                                                               े
                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                9
```

1854 1845 1914 1905 1974 2025	208 208 208 215 215 221 220 220	33333333333333333333333333333333333333	2505 2574 2565 2625 2625 2694 2695 2754	2745 2814 2805 2874 2865
CACACACACACACACACACACACACACACACACACACA		246 AGOCTITACAACTUTYCTIAGTTCACCCTTAGGGATTCCTGGAGGGACATCTATATTTC 11111111111111111111111111	2416 CCCCIAAACCATGAAAAATTAGATTTTGAATTTTAAAGATGAAGAAGAAG	TTTGGCCACATTAATA THILLILLILLILL THEGGCACATTGATA THEGGCACATTGATA STTTGCCCACATTGATA STTTGGGTATTGATA STTTGGGTATTGATA THILLILLILLILLILLILLILLILLILLILLILLILLILL
		\$ \frac{1}{2} \fra	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	à a à a à

```
2866 AGTICTAGMAATIGITIMMINIMAAANIAAAAITGMAGGTITAAGGATAGTAAGA 2925
                                                           .2875 ATCTTAGTCATTGTTATTGAAGATTGAAAATCTTGTGAAAATCCTGCCGTTTTAAAA 2934
                                                                                                                       2926 ATGCCCCTAGAGTGCGAGTCCTGATAAGGCAGGGGTGTGACTAGGTTTTGCCTTTTG 2985
                                                                                                                                           2995 ATGGCCTAGAGTGGAGTCTGATAACCAGAGTGTCTGACTTGCCTTCGCTTTG 3054
                                                                                                                                                                                                                                             3046 AACATGAACACCCITAGAAAAIGIGICCIAICIAICIICCAAAIGCAAITTGAIIGACIG 3105
                                                                                                                                                                                                                                                                                                                                                                     3106 CCCATTCACCAAAATTATCCTCAAAGTGTTTTCTCCAAAAATGGATTTAGAAATTAGAA 3165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3226 GCIIGTITTATAAAATTTTGCTTTTAATTAAATAAAAGCAAGCAAAGTATAACATA 3285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3286 TGATACTATCATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGAT 3345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3295 GCTTGTTTTATAAAATTTTGCTTTTAATTAAATAAAAGCTGGAAGCAAAGTATAAACATA 3354
                                                                                                                                                                                                                                                                                                                                                                                                                                                    3166 AAAAATTACTAATTTTACACATTTAATTTTATTTTACTATTGGAATCTGATATACTGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED REFINORIASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                              3346 TATTTTTTTTATCAACTTATGTTTTAAATGAGGATTATTGTTAGT 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURKESFUNDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STHEFF: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT AFFICATION DATA.
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE. Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSIEM: PC-DUS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TILING DATE. Unknown:
ATTORNEY-AGENT INFORMATION:
NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : Sequence 3, Application US/09469522
; Patent No. US20020151461A1
; GENFRAL, INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER PEADABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
US-09-469-522-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , vo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ΟŅ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <del>2</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                          덩
                                                                                                                                                                                                                                                                                                                                                                   20
```

```
·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961 ACTOCAGTTAGGACTGTTATGAACAATTACCAACAATTAATGATGATTTAAATTCAGCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481 GIGALLICALLICAGITAALOCHAGITIGGELIGACHATHTTATTTAAAGUCHGAGGTGGG 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421 GTTTGTTGGATGACATTTTTATTAGGTAAAGGGGAAGTATTACAAATGGAAGATGATCTG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541 ATCHTGCTCAAACAACCATATAAAACAGCTGTTATACCCATTAATGGTTCACCTCGAACA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721 HOAAAAAHITIALAGCITILARGAAFICICITGGACTIGTAACAICIAATGGACTTCCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781 GAGGITGAAAAICTITGIAAAGGATAGGAAGAAATTTATGITAAAAATAAAAGATCTAGAT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841 GYARGALIALITITIGGALGALGALAAAACTCTTCAGACTGATTCTATAGACAGTTTTTGAA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901 ACACAGAGAATACCACGAAAAAGTAAGCTTGATGAAGAGGTGAATGTAATTGCTGCACAC 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 AACITACIAAAAAATGATACCAGTACCAAAGTIGATAATGCTATGTAAGGCTGTGG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                           30) AAGAAGTATGATGTATGTTTGGGGTGTTTGAGGAAATTGGAAAGGACATGTGAACTTTATA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127 ANGANGTATGATGTATTGTTTGCACTCTTCAGCAAAITGGAAAAGGACATGTGAACTLATA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      461 TATTTGACACAGCAGCAGTTGGATATCTAAATTGTGCGATTGGTGCTAAAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            467 ATCH FGCTCAAAGAACCATATAAAACAGCTGTTATACCCATTAATGGTTCACCTCGGACA 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661 ALLALIGAAGIICTCIGIAAAGAACAIGAATGIAATATAGATGAGGTGAAAAATGTTTAT 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          487 ATTATTGAAGTTCTCTGTAAAGAAGATGAATGTAATATAGATGAGGTGAAAAATGTTAT 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        607 GAGGI EGAAAAFCELLEFAAAGATAGGAAGAATTTATCTTTAAAAATAAAGAFCTAGAT 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             667 GCAAGATTATTTTGGATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAA 726
                                                                                                                                                                                                                                                                                                                                                                                    7 ATGREGATERACITERACIONALI REPORTADA ANTONIO DE CARADA TENTO 11 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                        94.7%; Score 3212; DB 10; Longth 3218;
100.0%, Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                   100.0%, Pred. ac.
REFERENCE/DoorRET NUMBER: UTXC:506
                                                                                                                                                                                                                     LOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
               TELECOMMUNICATION INFORMATION:
                                  512/418 3000
                                                                                                       LENGTH: 3218 base pairs
                                                 TELEFAX: 512/474 7577
                                                                                                                                            STRANDEDNESS: single
                                                                     INFORMATION FOR SEQ TO NOT 3: SEQUENCE CHARACTERISTICS:
                                                                                                                          TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                 FOPOLOGY: Linear
                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                   NAME, ZEPY
                                                                                                                                                                                  FEATURE
                                                                                                                                                                                                                                                                                                                              Matches (212)
                                                                                                                                                                                                                                                         0.5 0.9 46.9 5.22 4
                                                                                                                                                                                                                                                                                            Courty Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                   <u>~</u>
                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
```

```
16.20
                                                                                                                                 .081 GAAAGTATACTGAAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAAAATTTGCTAAA 1140
                                                                                                                                                                                                                                               201 TATTACCSAGTAATGGAATGCATGCTTAAATCAGAAGAACAACATTATCCATTCAAAAT 1260
                                                                                                                                                                                                                                                                                                                                                                                                      1261 TITAGCAAACTICIGAAIGACAACATITITCAIATGTCITIATIGGCGIGCGGGGGTGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                1087 TTTACCAAACTTCTGAATGACAATTTTTTTTTTGTCTTTTATTGGGGTGCAACTTTTGAG 1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1681 CCAAAGAAAAAGGTTCAACTACGGGTGTAAATTCTACTGCAAATGGAAAAAGAAAAGAA 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HILLEHTHER HILLEHTELLEHTELLEHTELLEHTELLEHTELLEHTELLEHTELLEHTELLEH AVAALVAGIAT 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1921 GAACTCATGAGAGAGAGGCATTTGGACGAATTATGATGTGTTCCATGTATGCATATGC 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1747 GAACTCATGAGAGAGACATTTGGACCAATTATGATGTGTTCGTTGTATGGCATATGC 1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2041 CATGCTGTTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAAGAGAGTATGATTCTATT 2100
                                                                                                                                                                                                                          141 GCTGTGGGACAGGGTTGTGGAAATIGGATGAAGGGAAAAAA GAAAGTL GATTG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1321 GTTGTAATGGCCACATATAGCAGAAGTACACCAGAATCTIGATICTGGAACAGATTTG 1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1147 GTTGTAATGGCCACATATAGCAGAAGTACATCTCAGAATGTTGATTCTGGAACAGATTTG 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1207 TCTTTCCCATGGATTCTGAATGTGCTTAAATTTAAAAGGCTTTGATTTTACAAAGTGATC 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1441 GAAAGTTTTATGAAAGCAGAAGTTGACAAGTAAAGAAATGATAAAAGATTTAGAAGGA 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTGAACATCGAATCATGGAATCCCTTGCATGGCTCTCAGATTCACTTTATTTGATCTT 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1447 AATCTTCCTCCAGAATAATCACACHGCAGAGAIGIAFOLITOLOTIGHAAGAICL 1506
                                          02] AGTGATCAACCTTCAGAAATCTGATTTCCTALTTTAACAACTGCACAGTGAALCCAAAA 1080
                                                                                                                                                                              907 GAAAGIATACIGAAAAGAGTGAAGGITATAGGATACHTTAAAAGAAAALITGCTAAA 966
                                                                                       847 AGTGATCAACCITCAGAAAATCIGAITTCCTATTITAACAACTGCACAGTGAATCCAAAA 906
787 ACTCCAGTTAGGACTGTTATGAACACTATCCAACAATTAATGATGATTTTAAATTCAGGA 846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381 TCTTTCCCATGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       741 ACCTCACCCTTCCAGACCAAGAAGCATTGAAATGTACCTCTLTCACTGTTTATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1801 AAAGTGTATGGGGTAGGGTATGTGGGGTAAATAGATTIGIGAAGGGT101G1GAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1981 AAAGTGAAGAATATAGACTIIAAATICAAAATGATIGIAACAGATAAAAATCTTOCT
                                                                                                                                                                                                                                                                                                                                      1561 ATTAAACAATCAAAAGACCAGAAGGACCAAMTGATMAGGTTGAALMTGTMTGTMMTGTMMTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1621 AATCTTCCTCTCCAGAAIAAICACACTGCAGAAAIATGTATCTTTCTC TGTAAGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1861 CACCCAGAATTAGAACATALCA1C1GGACCTIIIC AGCAGACCTGG AGAATGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1501
                                               ô
                                                                                    g
                                                                                                                                   ŝ
                                                                                                                                                                              qq
                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                  dd
                                                                                                                                                                                                                                                                                                               ें
                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \frac{5}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  검
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
2221 CCIAGIICACCCIIACGGAITECTGGAGGAATAFTAIAIIITGAGGGGIGAAGAGGA 2280
                                                                                                                                                                                                                                                                                                            2701 AACTTICCCAGGTTCTGTTATGGCCACATTTAATACTTCAGCTGTTTTTGGTGGATATA 2760
1857 CATGOLGTICAGGAGACATTGAAAGGIGITTTGATGAAAGAAGAGGAGTATGATTGTATT 1926
                                                          2161 FECACCAGGCCCCTACTFGTCACCAATACCTCACATTCCTCGAAGCCFFACAAGTF 2220
                                                                                                                                                                                                                            1987 ICCACCAGGCCCCTACTTGTCACCAAIACTTGACAGAGGCCCTACAAGTTT 2046
                                                                                                                                                                                                                                                                                                                                                                                              2281 TATAAAATITCAGAAAGGCTGOOAAAGAAAAAAAAAAGACOOAAGATCAAAGAAGATCITA 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                2107 IATAAAATTICAGAAGGTOTOTOTAACAAAAAAAAAAAAGAACAAGAATCAAGAATCIA 2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Traicaa eggeratroscor (1974)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2227 IGTAAGAPPAPAPPTSPPFAAAAGAGTIGCTIGAAGGAAGGAAGGFGFTAAAGGAGTG Z286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2491 AAAAAANTAGGCTTTGATATTGAAGGATCAGATGAAGCAGATGGAAGTAAACATCTCCCCA 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2287 AAAAAACTAGGCITTGAIAITGAAGGAICAGAIGAAGGAAGGAAGGAAGIAAACALCICCCCA 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2521 GGAGAGI COAAAITI ICAGCAGAAQI GGCAGAAATIGACTICTAATIGAACAGGAATIGGAA 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2347 GGAGAGICCAAAIIICAGTAGAAATIGGCAGAAAIGACIIGIAGIGGAAGAGAAIGGAA 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2641 GACCTTGGTGGACACTGTATACACTCTTGGATTCATTGTCTCTCACACGTGTGACTGTAT 2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2527 AACITTOOAGGITOIGIIIAIGGCCACAIIIAAIAIGIICAGGIGIIII1441GAAAAAA 2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2761 AAATGTGCAGATGCAATIGTTTG33TGATTGCTAA33CAAAAAATGTTA33CATG3C 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2821 ATTIATACAAGATTGAAAATCTTGIGIAAAATCTGCCATTTAAAAAGTTGTAGCAGATTG 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            288) THICCIO HCCAAAGTAAAAHGCTGTGTTTTATGGATAAGAAYGGOOOYAAGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2941 GAGICCIGAIAACCCAGGCTGTGTGTAATIIGACTICTT1CTT11CGAACAIAIAGGTGAF +000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8001 GITTGCTCTTGTTTTTATTATTATATTTTTTTTTTTTTAATTTAACATGAACACCTT 3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3961. ARAAAA BIRISTOO A LOTATOTTOO AA BIROAATTIGATTIGATTIGAG BOOGGA HIGAGGAAAAP 3320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2647 ATTIATACAAGATGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGAATTG 2706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2827 STTTGSTOTTGTTTTTATTATTATATGTATATTTTTTTTTAATTTAACATGAASAGGTT 2885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2887 AGAAAATGTGTCCIAICIAICIFCCAAATGCAATTFGATFGACFGCCATFCACCAAAAT 2946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2707 ITICOTOTICCAAAGIAAAATIGCIGTGOTITIATGGATAGIAAGAAIGGGOOTIAGAGFGG 2266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2487 SACCITGGGGGACACAGGGACACCCCGGAICCAIGIGGGACACAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
```

```
3301 ACTGAAACAGAITTCATACCTCAGAAIGTAAAAGAACHIACHGATTATTTTCTTCATCCA 3350
                                                                                                                                                                                           3181 TACACATTAGATTTTAGTATTGGAATGTGATAIAGTGTGTGTGTTGTILIATAAAA
                                                                                                                           3067 TETTGCFFFTAATTAAATAAAGCTGGAAGCAAAGTAFAACCATATGAFACTATGATACT
                                                                                   3241 TTTTGCTTTTAATTAAATAAAAGCTGGAAGCAAAGTATAACCATATGATACTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91.6%; Score 3107; DB 10; Length 3113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
CFEFATINS SYSTEM, FT DCS,MS DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                    3361 ACTTATGTTTTAAA1GAGGATTATTGA1AGT 3392
                                                                                                                                                                                                                                                                                              3187 ACTTATGTTTTAAATGAGGATTATTGATAGT 3218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER 118,004,469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE DESCRIPTION: SEQ ID NO: 36:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Henedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                Sequence 36, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 3113 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CUNKROWEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; P
lve 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TIGLISPAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 36: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shi Xuc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FOPULOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           · alvonud lad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HU,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                                                  US-09-469-522-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-469-511-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 3107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                          RESULT 11
                                                                                   . o.y
                                       qq
                                                                                                                                                                     ô
                                                                                                                                                                                                               g
```

286 ATGTCAAGAGTGTTGAAGAAGTATGGTGTATTGGTGTCTTTGGGCAAATTGGAAAAA

Tue Jan 21 10:02:46 2003

11 GG 66 CT 405 GT 136	4 -	ATT 525     ATT 246	AT 585 	TA 645     TA 366	3AG 705 	ACA 765 11 ACA 486	MA 825 	cr 885 11 cr 606	AT 945 41 AT 666	ATG 1005	rge 1065 	AAA 1125 	AA 1185 	SGA 1245 	TG 1305 	3AF 1365 FI 3AF 1086	3AT 1425
TTGCACTCTCAGCAATTGGAAGTGGGAAGTGGGAAGTGGGAAGTGGGAAGTGGAAGTGAAG	TATTAGCTAAAGGGGAAGTATTA 	TGCTATGTGTCCTTGACTATTTT 	ATAAAACACTGTTAFACCCATT 11111111111111111111111111111111	GGAGTGCACGGATAGCAAAACAA TITTITITITITITITITITI GGAGTGCACGGATAGCAAAACAA	AAGAACATGAATGTAATATAGAT  +	TTAUGAATTOTOTTGGACTTGTA 	AACGATACGAAGAAATTTATCTT HIIIIIIIIIIIIIIA AACGATACGAAGAAATTTATCTT	ATGATAAAACTCTTCAGACTGAT 	AAAGTAAGGTTGA IGAAGAGGTG  - - - - - - - - - - - - - - - - - - -	TGAACACTATCCAACAATTAATG 	AICTGALTECTALLITAACAAC JIIIIIIIIIIIIIIIIIIIII ATCTGALTTCCTALTITAACAAC	TGAAGGATATAGGATACATCTTT 1111111111111111111 TGAAGGATATAGGATACATCTTT	TCGAAATTGGATCACAGGGATAC 	CCATGCTTAAATCAGAAGAAGAA HIIHHHHHHHHHHH CCATGCTTAAATCAGAAGAAGAA	ACAACATTTT ICALAIGICITTA HILLIIIIIIIIIIIIIIII ACAACATTTTTCATATGICTTTA	GCAGAAGTACATCTCAGAATCTP 	ATGTGCTTAATTTAAAAGCCTTP
ATG FCAAGACTG FLUITH HITH HITH HITH HITH HITH HITH HITH	GYATIGST GETAAAAGTITETTSGATCACATITTATTAGCTAAAGGGGAAGTATTACAA 	ATGGAAGATGATCTGGTGATTTCATTTCAGTTAATGCTAAGGGCTCCTGACTATTTATT	AAACTCLCACCTCCCATGTTGCLCAAAGAAGCATATAAAAGGGCTGTTATACCCATTAAT 	GHTFCACCTCGAACACCCAGGCGAGGTCAGAACAGGAGTGCAAGGATAGCAAAACAACTA HEEFELFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	GAAAATGATACAAGAATTATTGAAGTTGTGTAAAGAACATGAATGTAATATAGATGAG 	GTGAAAAATGTTTATTGAAAATTTTATACCTTTTATGAATGTTGTGGTGTGACTTGTAACA 	TOTAATGGACTTOGAGAGGTGAAAATGTTGTAAACGATAGGAAGAAATTTATGTTAAA ELLELLELLELLELLELLELLELLELLELLELLELLELL	AATAAAGAFCTAGAFGGAAGATTATTITTGGAFCATGAAAACTCTTCAGAGTGATTCT 	ATARACAGTETEGAAACAAAGACACAAAAAGTAACCTTGALGAAGAGGGAAT +	GTAATTCCFCCACACACTCCAGITAGACTGITATGAACACTATCCAACAATTAATGATG 	ATTTTAAAT ICAGCAGUGALGAACCUCAGAAAATGIGATTIGGUTUTTTAAGAACTGC 	APACHGAATCCAAAAGAAAGTATCAAAAGAGTGAAGGAFATAGGATACATTAAA 	GAGAAATTOCTAAAGCTGTGGACAGGGTTGTGTCGAAATTGGATCACAGGGATACAAA FELLELLELLELLELLELLELLELLELLELLELLELLELL	CTERRASTECACTESTATACCAGIAATGGAATCCATGCTTAAATCAGAAGAACGA FELLELLELLELLELLELLELLELLELLELLELLELLELL	HALCVALICAAAAHHAGCAAACHICHGAAGGACAAGATTTHIGALAIGIC FITATTG HILLIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	GOGLGGGCLCTIGAASITGTAALGGCGAGATATAGCAGAAGTACTCGGGAATCTTGAT TELLELLELLELLELLELLELLELLELLELLELLELLELL	TCTGGAACAGATTTGTCTTTCCCATGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGAT
346	406	466	5,28, 247	586	646 367	706	766	826 547	7.09 7.09	946 667	1006	1066	1126 847	1186	1246 967	1306	1 466
3 5 8	5 8	3 3	57 145	S CX	5 £	5 <del>2</del> 2	5 G	55 155 155	5 G	5 £	5 3	5 €	\$ G	5 3	52 33	5 3	S

```
1267 CCTTTATTTGATCTTATTAAACAATCAAAGGACGGAGAAAGGACTAAACTGATCACCTTGAA 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2167 CCTGCTAAAGCACTGAAAAAACTACGCTTTGATATGAAAGGACAGAGAAGAAGAAGGA 2226
                                                                                  1486 AAACATTIAGAAGGAIGIGAACAIGGAAICAIGGAAIGGCIITGGAIGGCICOTGAGAIIGA 1545
                                                                                                                                                                                                                                                                                                    CCTTTATTTGATCTTATTAAACAATGAAGGACGGGAGGAGGAGGAACTGATTGAA 1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1606 FCFGCFFGFGFGFTFAATGTFGCFCFFGAGAATAATFAGACTGCAGFATATATGTATTFF 1665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTCCTGTAAGATCTCCCAAAGAAAAAGGTTCAACTAGGGGTGTAAATTCTACTGCAAAT 1725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1447 GCAGAGACACACAACCICAGCCTICCAGACCCAGAAGCCATTGAAATCTACCTCTT 1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1786 TCACTCTTTATAAAAACTGTATGGCTAGGTTATGGGTTAATTGGATTTGTGAA 1845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1906 CIGCAGAATGAGTATGAACTGATGAGAGAGAGCALITGGAGGAAATLATGALGTGTTGC 1965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTATGGCATATGCAAAGTGAAGAATATAGACCTTAAATTCAAAATCATATTAACACA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1687 ATGTALGGCALATGCAAAGTGAAGAALALAGACCLLAAATLCAAAALCALLGLAACAGCA 1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2026 TACAAGGATCTTCCTCATGCTGTTCAGGAGAATTCAAAACGTGTTTTGATCAAAGAAGAG 2085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1807 GAGTATGATTATATATATTCTATAACTCGGTCTTCATGCAGAGACTGAAAAAAA 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2146 ATTITICCACTATICATICATION AND TOTAL AND AND ALIACITICATION (COMPANY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HITTH HITTHH HITTH HITTH HITTH HITTH HITTHH HITTH HITTHH HITTHHH HITTHH HITTHH HITTHH HITTHH HITTHH HITTHHH HITTHH HITTHHH HITTHH HITTHH HITTHH HITTHHH HITTHH H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2206 AGCCCTTACAAGTTTCCTAGTTCACCCTTACGGATTCCTGGAGGGAACAFCTATATTTCA 2265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2266 CCCCTGAAGACTCCATALAAAATTTCAGAAGGICTGCCAAACAAAAATGACTCCA 2325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1987 CCCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTGCCAACACAACAAAAATGACTCCA 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2107 ATAAATCAGATGGTALGLAACAGGGGGGGGGGGGGGAAAGAAGTGGTGAAAGAAGTAAT 2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2446 CCPPCTAAACCACTGAAAAACTACGCTTTGATATTGAAGTATCAGAFGAAGTATGGA 250%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1846 CGCCTTCTGTCTGTCTGAGCACCAGAATTAGAACATATCATCTGAGCCTTTTCCAGCACACA 1905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1627 CTGCAGAATGAGTATGAACTCATGAGAGAGAGACATTTGGACCAATTATGATGTGTTCT 1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1927 AGGCCTTACAAGTTTFCCTAGTTCAGCCTTAGGGATTFCCTGGAGGAAGATCTALATTTFCA 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2,326 AGATCAAGAATCITAGTATCAATTGGTGAATCATTCGGGACTTCTGAGAAGTTCCAGAAA 2,385
1087 TCTGGAACAGATTTGTCTTTGCCATGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGAT 1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qa ;
                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . oy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
```

```
28.26 AAATGAGGAEGEGAGGACCETGGEGGAAGTGTGTAAAATTGTGGATGTGTGTGTA 2685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.05 COCATICACCANAATTAICCIGAACICTICIGCAAAAAIGGAIAITATTACAAAATTAGA 3165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4166 AAAAALLACIAATITIACACATTAGATTTTATTAGTIATTIGGAATGTGAATATTAGTGT 3225
2506 ACTABAPATOTOGORGAGAGTOCAAATITIOAGOAGAAACTGGGAAAATGAOTTOTACT 2565
                          2447 AAATGAGGATCTCAGGACCTTGGTGGACACTGTGTACACTCTGGAFTCAFTGTTGTCA 2406
                                                                                                                                                                                                                                                                            2686 CAGATGTGACTGTATAACTTTCGCAGGTTCTGTTTATGGCCACATTTAATATGTLCAGGT 2745
                                                                                                                                                                                                                                                                                                 2487 OTTITGEGGATATAAAATGEGGAATGETEGGGGAATGTTGGGGTGATGCCTAAGGCACTTGAA 2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2806 ALGITAGICATIGITATTTAJACAGATTGAAAATCTTGTGTGAAATCCTGCGGTTTAAAA 2865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2307 TAGGAIATAGGTGATGTTTGGTGTTTGTTATTATTATTATATGTATGTATTTTAAATTT 2766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2888 ASTIGIAGGAGATIGITECCICTICCAAAGIAAAATIGGTGTGTIATGGATAGTAAAGA 2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2986 TAGGATATAGGTGATGTFTGGTGTTTTTTATTAATTTATATATGTATATTTTTTTAATTTT 3045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25.27 ATGTTAGTCATTGTTATTATACAAGATTGAAAATGTTGTGTAAATCCTGCCATTTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2827 CCCATTCACCAAAATTATCTGAATGTGTGGAAAAAAAAGGATATTATTAGAAATTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2887 AAAAATIACIAAITITACACATTAGATITITATTIACIATATGGAATOTGATATAOTGTOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      445 TATILITICALCCARCITALGITILITAAAIGAGGATTATTGATAGT 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5-57 IATITICATICANCIANTINITIANAIGASAAIIATIGAIAST 3413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 48, Application US/U9469522
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu. Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US 119 4F9-522 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 1.2
                                                                                                                                                                                                                                 Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
```

```
70 TIAAPITATATATAAAAN DAAA DAAA DAAAAAA ISA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       370 CAACCCAGCAGTICGAIATCTACTGAAAFACTGCATTGGTGCTAAAAGTTTCTTGG 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  172 GATTTTACTCCATTATCTCASAAATTAAAGATACCAGATCATGTCAGAGAGAGAGGTTGG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              130 AAGGAACTGTGGAGAATCTTTTATTGCAGGAGTTGACCTAGATGAGAIGTGGTTT 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             140 ACTITIACTSAGGIACAGAAAAAGAIAGAAAIGAGIGIGGAIAAAIIGIIIAAGIIAAGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        352 ACTITIBACTGAGGIACAGAAAAACAIAGAAATCAGIGICCATAAAIICITIAACIFACIA 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               412 AAAGAAATTGATACCAGTACCAAAGITGATAATGCTAIGICAAGACTGTTGAAGAAGTAT 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           310 GATGTATTGTTTGGACTCTTTGGAAATTGGAAAGGACATGTGAAACTTAIAIAII1GACA 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         472 GATGTATIGITIGCACICIICAGTAAATIGGAAAAGGACAIGIGAACTTATATATTTGACA 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 430 ATCACATTITTATIAGCTAAAGGGAAAGIAITAGAAA1GGAAGAIGAIGIGGIGGIGGIGGA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4, Indels 171; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 10; Length 3383;
                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC Compartible
CPFATING SYSIEM: PC-LosyMS-Lub
SOFTWARE: PatentIn_Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89.2%, Scute 3024.6;
94.8%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0, Mismatches
                                              ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469.522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 09,026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                            FILLING DATH: 22 Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 3383 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               127418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE, SURRESHIP ATTORNEY/AGENT INFORMATION: NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 512/474-7577
                                                                   STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS
NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 94.8
Matches 3208; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
                                                                                                                                                             ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                         CIIY: Houston
                                                                                                                                          COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COCATION:
                                                                                                               STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
```

.. ;

765	ATCACATITITATIAGO	651	
440	HIPAGETAARGETAIGEGEGIGGGEATHITAFFAAAGEGEGEGGGGGGGGGGGGGGGGGGGGGGGGGGG	549	
	AANJAACATATAAAAWAAGTGITAIAADGALIAAIGGITGACTGACAAGAAGAAGAAAAAAAAAAAAAAAA	609	
7117		730	
610	-001FCAGAACAGGAGTGCACGATAGCAAACAACTAGAAAATGATACAAGAATTATTT	599	
7 11		7.30	
07.0	_	729	
7 4 1		7.30	
7 40		789	
790 781		849 840	
8.50 8.41		606	
910 901		096 696	
970 961	AGGACTOLIATGAACACIALCCAACAATTAATGATGATGATGATGATGATGATGATGAGAGATGAT	1029 1020	
10.40	PCTTCAGAAAATCTGALIICVTALITTAACAAGIGGA FILLITTITTITTITTITTITTITTITTITTITTITTITTI	1089 1080	
1090	CTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAG 	11 <b>4</b> 9 1140	
1150	PAGGGTTGTGTGGAATTGGATGAGAGGGATA THITTHTHTHTHTHTHTHTHTHTH PAGGTTGTGTGAAATTGGATGAGAGGAIA	1209	
1210	GTAATGGAATGCATGGTTAAA TTTTTTTTTTTTTTTT GTAATGGAATGG	1269 1260	
1270	CTTCTGAATGACAACATTTTCATATGTCTTTATTGGGGTGGGG	1329	
1440	OPPAPALATAGGAGAAGTACAGAAATGTTGATTGTGGAAGAGATTGTTTGCGA THEFFILLE HELLET HELLEGAAGATTGTGTTTGTCTTTGCCA	13	
1490	I GDATICH GAATGEGYTFAATHAAAAGCOTHGATTTTTTACAAADH 	144	
1450	A FCAAAG CAGAGG CAACTTGACAAGAAATGATAAAAGATTTAGAACGATGTGA 	1509 1500	
1510	CGAATCATGGAATCCCTTGCATCGCTCTGAGATTCACCTTTATTTGATCTTATT 	1569	

yo du	1570	570 TCAAAGGACCGGGAGAGCGACTGATCACTTGAATCTGCTGTCTCTCTTTAATCTTCTT 1622 	1629
Qy	1630	CTCCAGAATAATCACACTGCAGCAGATATGTATCTTTTCTCCTGTAAGATCTCCAAAGAAA 16	, £
Ob	1621	CTCCAGAATAATCACACTGCAGAAATATGTATGTTTCTCTGTAAGATCTCTAAAGAA 16	8.
ΟŸ	1690	AAAGGITICAACTACGCGTGTAAATTCTACTGCAAATGCAGAGACAAGCAAG	2.
QQ	1681	AAAGGTTCAACTACGCGTGTAAATTCTACTGCAAATGCAGAGCACAAGCAACCTCAGCC 17	. <b>4</b>
çy	1750	TTCCACACCCAGAAAGCAIIGAAAICTACCTCIIICACIGIIITAIAAAAAAGGTAT 18	503
<b>q</b> :	1741	TTCCACACCCAGAAGCCALTGAAATCTACCTCTTTCACTGTTTATAAAAAGTGTAT 18	908
60	1810	CGGCTAGCCTATCTCCGGCTAAATACACTT1GTGAACGCTTCTGTCTGGGGCACACAAA 18	698
යූ ර	1801	CGGCTAGCCTATCTCCGGCTAAATACACTTTGTGAACGCCTTCLGTCTGAGCACCCAAAA 18	091
79 -	1870	THAGAACATATCATCHGGACCCTTTFCAGAACACCCAAAAAAAAAAAAAAAAAAAA	٠ د
qa	1861	TTAGAACATAICATCIGGACCITIICCAGGACACAGGAAIGCAGIALGAACTCAIG 19	07
δδ	1930	AGAGACAGONATTGGACCAAATTATGATGTCCATGTATGGCATATGGAAAGT9	ž.
qn	1921	AGAGACACCCATTTGGACCAAATTATGATGTTCCATGTATGGCATATGCAAGTGAAGTT9	0
ζ	1990	AATATAGAGCTTAAATICAAAAATCATTGTAACAGATACAAGGATCTTGCTGTGTTT 20	<b>4</b> 4
q	1981	AATATAGACCTTAAATTCAAAATCATGTAACAGGATACAAGGATCTTCTCATGTTCT 20	<b>□</b>
ΟŊ	2050	CAGGAGACATICAAACGIGIIIIGATCAAAGAAGAGGAGIAYGA FATALALAGIATIC 2)	50
qq	2041	CAGGAGACATTCAAACGTGTTTGATCAAAGAGAGAGTATGTTTTTTTT	0.0
δ	2110	TATAACTCGGTCTTCATGCAGAGACTGAAACAAATATTTTGCAGAGATGTTG AD AGG 210	59
qu	2101	TATAACTICGGTGTTGTTGTGTGTGTGTGTGTTTTGTGTGTTGTTGTT	90
Qy	2170	CCCCCTACCTGCCCACCACACACACACACACACACACACA	57.
qq	2151	CCCCCTACCTTGTCACCAATACCTCACATTCCTCGAAGCCTTACAAGTTCCTTACTTCA 22	0.73
ΟŸ	2230	OCCTTRACGGATTSCCTGGAGGGAACATCTATATTTTCACCCTGAAGAGTCTATATAAAATTT 22:	ت ش
DE	2221	COTTAGGATTOTGGAGGAAGACITATATATGGGGGGGGGGGGGATT 22	0.80
δ	2290	TCAGAAGGTCTGCCAACACCAACAAAAATGACTGCAAGATCAAGAATT 23.	2.4
qu	2281	TCAGAAGGICTGCCAACACAACAAAATGACTGCAAGATGTTTTTTTTTT	0.41
δλ	2350	GGTGAATCATTCGGGACTTCTGAGAAGTTCCAGAAAATAAAT	60'
Db	2341	GGTGAATCATTCGGGACTTCTGAGAAGTTCCAGAAATAAAT	0.0
Οy	2410	GACCGTGTGCTCAAAAGAAGTGCTGAAGGAAGCAACCTCTAAAACTACTGAAAAAATTA 24	<del>5</del> 9
qq	2401	GACCGTGTGCTCAAAGAAGTGTGTGTGTGTGTGTGTTGTTGTTGTTGTTGTT	09
δ	2470	CGCTTTGATATTGAAGGATCAGAAGGAAGTAGATGGAAGTAAACALCTCCAGGAGAGTCC 28	6.7
qci	2461	COCTITIONITATION CONTINUE AND CONTINUE COCTITION CONTINUES CONTINU	0.7
ΟŅ	2540	AAATITCAGCAGAAACIGGCAGAAATGACTICIACITGAACACGAAGAAGAAAAAAAAAA	200
qq	2521	AAATTCAGCAGAAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAAGCAGAAA 25.	S ₩
ΟY	2590	ATGATGATGATAGCATGCATACCTCAAACAAGAAGAAATGAGGATGTCAGGACCTCGT 264	2
qq	2581	ATGAATGATAGCATGGATACCTCAAACAAGGAGAGAAATGAGATCTCAGGACTTGGT 26	0.4

```
2881 - CAAAASTAAAATIGCIGGTITATGGATAGGAAAGGCCCCCAAGAGGGGGGCCCTAGA 2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3181 GATTTTATTTTACTATTGGAALGIGATAFAGGGTTGTGGTTTTATAAAATTTTGGTTT 3240
               273.) AGGIICIGIIIAIGGGCACATIIAAIAICTICAGCTGTITITGTGGAIAIAAAATGTGGA 2769
                                                                                                        2770 GAIGCAATIGITIGGGTGATTCCTAAGCCACTTGAAATGTTAGTCATGTTATTATTATAAA 2829
                                                                                                                                                                                               2830 A3AFEGAAAATCFFGTGAAAFCCFGCCAFFFAAAAAGFFGTAGCAGAFFGFFFCGFGFF 2889
                                                                                                                                                                                                                                                                                   2821 AGAITGAAAATCITGIGIHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                   2890 CCAAAGTAAAATIGGIGTGTGTTIAIGGAIAGTAAGAAIGGCCIAAGAGGGGGAGCCIGA 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                       3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2.441 IAAGGCA30QCIGICIGACIATACIIIGTITTTITATAGAIAIAAAAIAAFAIIFGCICI 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4515 TGLILLIALTAAFITFALATGTATAFITTITTIAAFITFAACATGAACACCCTTAGAAAATGI 3069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3140 GATTPTPATTTPTACTATTGGAAPPTGAPAPAPACHGFGFGFGTTTTTTAAAAAFFTTGGFFF 3249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (4.0) GAITTCATACCTCAGAAIGTAAAAAAAATTTACTGATTATTTTCTTCATCTAATTATTT 3369
ĬĠAGAGIĞIĞI AZAĞĞI ÇINĞANIN GATIN GELETI ÇETI ÇETI ÇAĞANIĞI ÇETIĞI ATAAÇINTINĞĞE Ş7ÖŞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5-20 STOCIALCIALCIACIOSAAA165AAITIGAFTGAGTEGGATITCAGGAAATFALOCFGAA 3129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4250 TAATTAAATAAAAGCIGGAAAGCAAAGIAIAAAXAIAIGAIACIAICAIAQIACIAAAAPA 3309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2450 TAAQDQAGGTGTGTGTACTTTGGGTTGTTTTGTAGGATATAGGTGATGTTTGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORRESPONDENCE ADDRESS:
ADDRESSEE: ATHOID, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4470 IIIAAALGAGGATTATIGATAGI 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/09469522
420020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4461 TITAAAIGAGGAITAITGAIAGI 3383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIREEL: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Xa, Hongeli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MPULER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "ITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DINTRY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08 09 459 522 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           表 2017 - 1 - 1 - 3
                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ē
```

```
70 TTAACTTGGGGAGAAAAATTTCATCTGTGGAATAATAATGGGAGTTATTGGGAATAATAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              130 AAGGAACTGTGGGGAA1GTGTAICTTTATTGGAGGAGTTGACCTAGATGAGAIGIGGT16 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           352 ACTITITACTICAGCIACAGAAAACALAGAAALCAGIGTCCATAAATICTITAACITACTA 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             412 AAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTAT 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           472 GAIGIAITGITIGCACTETTEAGCAANTGGAAAGGAAAAGTGIGAAGTTATATATTEGACA 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        370 FAAGGGAFASTFOSAFATGTACTSAAATAATTGFGGATGGFGGFAAAAGTTTCTTGG 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               430 ATCACATTTTATTAGCTAAA6666AA61ATTACAAAT6GAAGATGATCT66TGATTTCA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        490 TTTCASTTAATSCTATGTGTCGTTGACTATTTTATTAAACTGTCACCCCCALGLLGGLG 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4; Indels 177; daps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 GATTTTACTGCATTALGTCAGAAATTAAAGATACAGATCAIGTCAGAGAGAGAGGCTTGG 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 292 AAGGAACTGTGGGGAATCTGTATCTTIALIGCAGGAGIGACCTAGATGAGAIGICGITC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    250 AAAGAAATIGATACCAGTACCAAGIIGAIAAIGCIAIGICAAGACIGIIGAAGAAGIAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             310 GATGTAFFGFFFGFFFGTFCFFGGAAATFGGAAAGGACAFGFGAACTTATATATTFGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88.8%; Score 3012.6; DB 10; Length 3377; 94.6%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismath hes
                                                                                                                                                                                                                                                                                                                        REFERENCE/LOCKET NUMBER: UTXC:5006
TELECOMMUNICATION INFORMATION:
                                           SOUT-SWASSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                                                                                                                                                                                         APPLICATION NUMBER: 09/026,459
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 41,071
                                                                                                                                      FILING DATE: 22 Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                        512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 3377 base pairs
                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION: NAME: Hibler, David W.
                                                                                                                                                                                                                                  FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: single
                                             OPPRATING SYSTEMS FOR
                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                    PPIOP APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conserva*ive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 532 CAACCCAGCAGTTCGAT
                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-459-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 3202;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ė
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             É
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           걾
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
```

---

2 4	Q 4	জ ক	o ◆	ত ক	2 4	29	œ r~	4.9 3.4	09	69 54	29 14	~ 9	49	0.9 9. <b>4</b>	69° 54	29	89
გნ 65	72	78	8 8 4 8	76 8	96 95	<b>→</b>	10	11	12	12	13	13.	14 14	15	15	16 16	16
- GETCAGAAYAGGGGTGPAGGATAGPAAAA-AACLAGAAAALGATACAAGAALTAFTGGA - LELELELELELELELELELELELELELELELELELELE	GTECTCTGTAAAGAACATGAATGTAATATAGAGGGGGAAAAATGTTAATTCAAAAATGTTTHIIIIIIIIIIIIIIIIIIIIIIIIIIIII	HIAIACCHHIAIGAAHCICH HI HIHHHHHHHHHH TITAIACCHTTAIGAATTCICH	AATCETTCTAAACGATAC 	THITIGGATCATGATAAAACTCTTGAGAVIGATIGTATAGACAGITHGAAAVAGAGAGA 	ACACGGGAAAAABAACCTIGA GAAGAGCIGAATGTAATICCTGGACAGACTGCAGTT 	AGGACTGITATGAAYAYTATCCAAYAATTAATGATTTTAAATTCAGGAAGTGATCAA LILLILLILLILLILLILLILLILLILLILLILLILLIL	CCTTCAG HILLIII CCTTCAG	PEGAAAAGTGAAGGATATAGGATACATTTAAAGGAAAFTTGCTAAAGCTGTGGGA FEEFFEEFFEEFFEEFFEEFFEEFFEEFFEEFFEEFFE	CARBOTTOTOTOGAAATTOGATCACAAAAAACTTOGAGTTCGCTTGTAACGAAATTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOT		£ = £		TGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGA	ATCAAAGCAGAAGDCAACTIGACAAGAGAATIGATAAAAGATTTAGAAGGATGTGAAGATTTITITITI	OGANICATGGANTOCCTTGDATGGCTCTCAGAITCACCTTTATTTGATCTTATTAAAAAA	TCAAAGGAOGGAGAAGGAACTGATCACCTTGAATCTGCTTGTCCTTAATCTTCCT 	
61.0 7.55	670 655	7.40) 7.15	790 775	3	910 845	970	040	040 075	150 135	210 195	1270	÷ ÷	650 475	450	510 495	5.70	6.40
															-		
5 3	3 Î	55	÷ ÷	5 3	5 3	5 3	à ≘	5 3	5 Ê	5 3	5 3	5 2	5 3	5 3	5 3	5 3	5 3

26.34 1750 TTCCAGACCCAGAAGCCATTGAAATCTACTCTTTCACTGTTTTATAAAAAAGTGTAT 1809 113 TTCCAGACCAGAAAGCATTGAAATCTACTCTTTCA/TGTTTATAAAAAAGGTT/ 1754 1870 TTAGAACATATCATCTGGACCCTTTTCCAGCACCCCGCAGAATGAGTATGAACTCATG 1929 1855 TTAGAACATATCATCTGGACCCTTTTCCAGCACACCTGCAGAATGAGTATGAATTCATG 1914 1975 AATATAGACCTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTTATGTTT 2034 2050 CAGGAGACATICAAACGIGIIIIGAICAAAAAAAAAAAGAGIAIGATIGIAIIAIAAGAATTC 2109 2035 CAGGAGACATTCAAAGGIGTTTGATCAAAGAGGAGGAIGATTCIAIIAITIT 2094 2155 CCCCTACCTIGICACCAATACCTGACATICCTGGAAGCCTAAAAGTTCTAATTCA 2659 GGACACTGTACACCTCTGGATTCATTGTCTCTCACATGTGACTGTATAACTTTACC 2709 2710 AGGTTCTGTTTATGGCCACATTAATA1CT1CAGCTCTTTTG1GGATATAAAA1GTGAA 2770 GAIGGAATTGITTGGGIGATTCCIAAGGCACTIGAAAIGTTAGTCATTGTTATTATATA 2829 1690 AAAGGTICAACIACGCGIGIAAATICIACIGCAAAAIGCAGAGACACAAAAACTTCAGC 1749 1930 AGAGACAGCATITGGACCAAATIALGALGIGTIGCALGIALGGCALALGCAAAGIGAAG 1989 1915 AGAGACAGGATTTGGACCAAATTATGATGTGTTCCATGTATGGCATATGCAAAGTGAAG 1974 2110 TATAACHCGGTCTHCA1GCAGAGACHGAAAAAAATATHTHGCAGTA1GCTHCCACCAGG 2169 2170 CCCCTACCTTGTCACTACCTCACALLGCTGGAAGGGGTTTLAGAAGTLLGTAGTLGA 2229 2215 CCCPTRACGGAPTEPPPGGGAGGAACATCTATATETTCACCCPTCAAGACPCCATATAAAATE 2274 2275 TCAGAAGGTCTGCCAACACACAAAAATGACTCCAAGATCAAGAATCTTAGTATCAATT 2334 2350 GCTGAATCATTCGGGACTTCTGAGAAGTTCCAGAAATAAAFGAGATGGTALGTAACAGC 2409 2410 GACCOTGTGCTCAAAAGAAGTGCTGAAGGAAGCAACCATCAAACCACTGAAAAAAATA 2469 2395 GACCOTOTOPAAAAAAAAAAGTGOTOAAAGGAAGGAAGGTTOTTAAATTAGTGAAAAAAATA 2454 2515 AAATTTCAGCAGAAACTGGCAGAAATGACTICTIACTCGAACACGAALGCAAAAACGAAAA 2574 2455 CGCTTTGATATTCAACGATCAGATGAAGCAGATGGAAGTAAACATCTCCCAGGAGAGTCC 2514 2230 CCCTTAGGGATTCCTGGAGGAACATCTATATTTCACCCCTGAAGACTCCATATAAAATT 2530 AAATITCAGCAGAAAFIGGCAGAATGAFITFITACIGGAAGAGAGA IGGAAAAGFAAAA 1990 AATATAGAGGTTAAATTGAAAATGATTGTAAGAGGALAGAAGGATGT LGTLOATGT GE 2470 PGCTTTGATATTGAAGGATCAGATGAAGGAGATGGAAGTAAAGATGTAGGAAGAAGA qq a 9 g q 9 q qq a qq 9 ò 윤 qq q ੇਂ ò ò 5 ò Š ò ŝ ò  $^{\circ}$ ò ô ò  $\frac{q}{q}$ ò a ò ò a ŝ

Tue Jan 21 10:02:46 2003

```
2755 GAIGGAAITGITTGGGTGATTGGIAAGGCACTTGAAATGTTAGTGATTGTTATATAAAA 2814
                                                                                                                                                                                                                                                                                                                                                                                                                                             2352 TAACCCAGGCCTGTCTGACTTTGCCTTCTTTTGTAGCATATAGGTGATGTTTGCTCT 3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (410) GATTICATACCTCAGAATGTAAAAGAACTIACTGATTATTTTCTTCATCCAACTIATGTT 3369
                                                                                                                                                                  28.50 AGATTGAAAATCTTGTGTAAATGCTGCGCATTTAAAAAGTTGTAGCAGATTGTTTGCTCTT 2889
                                                                                                                                                                                                                                                                          2815 AGATTGAAAAATCTTGTGTAAATCCTGCCAFGTAAAAAGTTGTAGAATTGTTFGCTT 2874
                                                                                                                                                                                                                                                                                                                                                                                        5-15 IGIIIIIALEAATETALAIGTATATTTTTAATTTAACATGAACACGCFTAGAAATGF 3069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4115 CICTICIGCAAAAATGGATATTATTAGAAATTAGAAAAAAATTACTAATTTTAGACATTA 3124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3250 TAATTAAATAAAAGCTGGAAGCAAA:TATAAACAATATAGATACTATGTGTACTACTAGTGAAACA 🔫 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        435 SATITCATACCTCAGAATGTAAAAGAACIIACIIHHHHHHHHHHHHHHHHHH 3354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (4) 0. STCCTATCTACCTACCAAATGCAATTGATTGACTGCCAATTCACCAAAAATTATCCTGAA 3129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4-55 GLCCIALCIATCHTCCAAAHGCAATHGATHGACHGCCCATHCACCAAAATTATCCHGAA 3114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41.40 (TCTTCTGCAAAAATGGATATTATTAGAAATTAGAAAAAAATTACTAATTTACACTTA 3189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Henedict, William F.
Zhou, Yunli
IIILE OF INVENTION: MODIFIED PETINORLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWAPE: Patentin Felease #1 0, Version #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US,709,469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DAFE: 22-Dec-1999 CLASSIFICATION: FIDE FOR SECOND FOR SECON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ITTAAATGAGGALTATTGATAGT 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application 119,09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               *** ITIAAAIGAGGAITATIGATAGI 3377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIREES: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   URRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMPUTER READABLE FORMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xu, flong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fatent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILLING DAFE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US 09 469 522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       - - TINEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
```

```
987 IAICCAACAAIIAAIGAIGAIIIIAAAIICAGGAAGIGAIGAIGAAGGTIGAGAAAAAAIGIGAI 1946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              942 TATGGAAGATIAAIGATGATITIAAAIIGAGGAAGIGATGAAGCTTGAGAAAATGTGAT 1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           947 FIGGIA FIRAADAAGIGSAFAGISAATSAAAAAAAAASAAGIAFAAAAAAAAAAGAGIGAAGGA TIQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                747 ITCICITGGACIIGIAACAICIAAIGGACIICCAGAGGIIGAAAAICIIICIAAAGGAA 006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         987 AICTAGEGAAAIAAAIICEGAIIGGIGGIAAAAGIIICTIGGAICACATITIIAIIAGG 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    447 TAAAGGGAAGTATTACAAATGGAAGATGATCTGGTGATTTCATTTCAGTTAATGCTATG 506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      567 AGCIGITATAPECATIAA FGGIICACCIOGAACACCAGGGGAGGICAGAACAGGAGTGC 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   582 ACGGATAGCAAAACTAGAAAATGATACAAGAATATTGTAGTTCTCTGTAAAGAACA 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    702 TICTCTTGGACTIGIAAGAICTAATGGACTTGCAGAGGTIGAAAATGTTTGTAAAGGAIA 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RK7 AACTICTTCAGAGTGATTCTATAGAGAGTTTTGAAACACAGAGAGGAGGAGGAAAAAGTAA 926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               822 ANTISTICAGA PIGATIOTATAGA GALTITIGA A CARAGA GA A CARAGA A CARAGA A CARA A CARAGA A CARA A CARAGA 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 927 CTTTGATGAAGAGATGAATGTAATICTCCCCCCACACTCCAGTTAGGACTGTAIGAACAC 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  762 CHARGAAATITATCITAAAAATAAAGAICIAGAIGCAAGAIIAIIIIGGAICAIGATAA 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.62 FGFOOTFGAPTATFTALFAAAPTOTGAGGIGGGATGTTGGIGAAAGAAGGATATAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SQ7 INGTOCTTICACITATITATITAAAÇTIÇTIÇAGGILGGGALGILIGGILGGILGAAAGAAGGATALAAAAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        687 TCAATCTAATAVAGAYGYGAAAAATGTTTTTTTTTGAAAATTTTTAGGTTTTTATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          542 TGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTTATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ROF CHANGAAATETATCITAAAAATAAAGAICLAGAIGCAACAITATITTIGGAICAIGAIAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88 6%; Score 3006; DB 10; Length 3347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  o; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  U; Mismatches
                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE DESCRIPTION: SEQ ID NO: 42:
APPLICATION NUMBER: 09/026,459
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred No.
                                                                                                                                              NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: 512,418-3000
TELEFAX: 512,474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 3347 base pairs
                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ 10 NO: 42: SHQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches shib; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . č
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ĉ
```

1156	1226	1286 1241	1346 1301	1406 1361	1466 1421	1526 1481	1586 1541	1646 1601	1706 1661	1766	1826 1781	1886 1841	1946 1901	2006 1961	2066	2126 2081	2186 2141	2246
) TATABBATACATCH TAAAGAGAAALITGCTAAAGCTGTGGGAAGGCTTGTGGTGTGGAAT TELLITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	7 FORATCACAGATACAAACTEGAATTOGA 11 FEELELEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE	7 TAAATCAGAAGAAGAAGAA 	7 TITTIVATA IGTOTIT DATIGOCOLOGOCOLOTICA DOTIFICIA MODOCOACADA MAGOACAAGA TITTIVATA IGTOTITATIO DEL LA LITTIVATA IGTOCOLOTATA GAGOACATA LA CATACAGA AGA AGA AGA AGA AGA AGA AGA AGA AG	7 TAPATCTONIAATOTTGAAACAGATITGTCTTTCCCATGGATTCGAATGTGCT 	07 FAATITAAAAGOCTITGAIIIITACAAAGIGAIGGAAAGITTTATCAAAGGAAAAA 140 	67 CTEGACAAGAAAGATAATAATATITAGAAGATGTGAACATCGAACAACGAAGAACATGTGATTTTTTTT	?) TGPATGGFTCTCAGATFCACTTTATTTGATCTTATTAAACAATCAAAGGACCGAGAAGG 	P ACCANTIGATICACITICATION OF TIGHTH HITTH	7 TGPAGGAGATATGTATGTTGTCCTGTAAGATCTTCCAAAGAAAAAGGTTCAACTACGG 	P. TOTAAATTCTACTOCAAATGCACAAGACAAGTCAAGCLIOCAGAGCOAGAAGCC 	962 ATTGAAALCTACCTCTTTCACTGITITALAAAAAAGTGIATCGGCLAGCCLALCTCCG 182 	27 GYTAAATAYACTIIGIGAAGGYYTIGIGIGIGAAGAACGAGATTAGAACATAIGATGA TITTIITTIITTIITTIITTIITTIITTIITTIITTII	P. GAPPTILLECAGGA ATACOTIGENGAATGAGAGAAGAAGA GATGATGAGAAAAAGAAGAGAGATTIGAA ELLELLELLELLELLELLELLELLETTELLELLELLELLE	7 CCAAATTATGATGTGTCCATGTATGGCATATGCAAAGTGAAGAATATAGACGTTAAATT 	7 CAAAAFCALIGIAACACCALECA 	r. 7	~ ~	87. AATACCICACATICCICCAAGCCITTACAAGTITCCIAGTICACCCITACGAFTCCTGG
110	116	122	12		<u> </u>	4 T			<u>, , , , , , , , , , , , , , , , , , , </u>	1,	1 1	= =	÷ ÷	<u> </u>	2007	0.7	2.1 2.0	7 ]
5 =	5.7 5.6	5 3	45 145	ج ت	5 È	55 3E	5 3	5 3	5 3	5 5	5 🕏	5 5	\$ 2	55 42	5 3	3 3	5 3	.∴

```
2786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2142 ANTACCICACATICCI CAAAGCCCTI ACAACTI TOO TATII COTTI ACAGATICCI (Q. 220)
                                                                                                  2307 ACCAACAAAATGACTICPAAGATCAAGAATTTTATTTAATTGATTGATTATTTGGGAC 2366
                                                                                                                                                           2367 THOTGAGAAGTTPCCAGAAAA FAAATDAGA PGGI ATGTAADAGAGAGACOTOTOTOTPGAAAAC 2426
                                                                                                                                                                          2382 AAGTIGCTIGAAGGAAGCAACCCTICCTAAACCACTIGAAAAAATTACCTTTTGATATTTGAAGG 2441
                                                                                                                                                                                                                                                                           2487 ATCAGATGAAGCAGATGGAAGTAAACATCTCCCAGGAGTCCCAAATTLCAGCAGAAGT 2546
                                                                                                                                                                                                                                                                                                                                                                 2667 CHGGAITCATTGTCTCACAGATGTGACTGTATAACTTTCCAGGGTTTTATGCCC 2726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2847 TAAATCCTCCCATTTAAAAACTTGTAGCAGATTGTTTCCTCTTCTCGAAATTAAAATTGCTG 2906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2907 TGCTTTATGATAGTAAGAATGGCCCTAGAGTGGGAGTCCTGATAACCCAGGCAGTGTGTG 2966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3207 GGAATCTGATATACTGTGTTGTTTTATAAAA1111GTTTTLAA1TAAA1AAAAACCTG 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3267 GAAGCAAAGTATAACCATAIGATACIATGAIACIGAAACAGATITCAIACTICAAAA 3326
                                          2247 AGGGAACATGTAITTTTACCCGTGAAGAGTGCAIAIAAAAIIIGAGAAAGGTGTGCAAA
                                                                                                                                                                                                                     AAGTGCTGAAGGAAGCAACCTCCTAAACCACTGAAAAAACTACGCTTTGATATGAAGG 2486
                                                                                                                   2262 NCGAGAAAAATGECTGCAAGATCTTA3TAFAATTGGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2442 ATCAGATGAAGCAGATGGAAGTAAACATCTCCCAAGAGAGTCCGAAATTTCA CAGAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3027 ATGIATATETETETETAATTITAACATGAACACGCOTTAGAAAATGIGIGOTATGITATOTATGITIGOA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3087 AATGCAATTTGATTGACTGGCCATTCACCAAAATTALGCTGAACTCLLCTGCAAAAALGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8042 AA FGCAALI EGATI GACTGCCCAT FCACCAAAA LIALOFI GAACTGL FFLOFAAAA EG
                                                                                                                                                                                                                                                                                                                                   ACTACTTGCCTTCTTTGTAGCATATAGGTGATGTTTGCTCTTGTTTTTTATTAATTTAT
                                                                                                                                                                                                                                                                                                                                                                                              2607 TACCECAAACAAGGAAGAAAATGAAGATCECAGGACCITGGIGGACACTGIGIAAAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2622 CTGGATTGATTGTCTCTCACAGATGTGACTGTATAACTTTCCCAGGTTTTTGTTTAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2682 ACATTAATATCTCACCTCTTTTGTGCALATAAAALGTGCAGATGCAATLGTFTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δō
                                            ŝ
                                                                     q
                                                                                                  ò
                                                                                                                            qq
                                                                                                                                                           ò
                                                                                                                                                                                   3
                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ď
```

```
₹
---
                                                                                                                                                                                                                                                                                                                       QD.
                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQ
                                    .
1⊒
.
                                                                                                                                                                              g
                                                                                                                                                                                                                 ôγ
                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                  **27 TSTAAAAGAACTTACTGATTTTTTTTCTTCAACTTATGTTTTAAATGAGGATTATT 3386
 4222 GAANGAAAGTATAARGATATGATAGTAGTAGTAGTAGAAAGAGATTTGATAGTGAGAA 3281
                                                                     1882 TGTAAAAGAAGTTACTGAITATTTTCATCCAAGTTATGTTTTTAAATGAGGATTATT 3341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FOR GAGGITCAGAACAGGAGIGCACGGAIAGCAAAACAACIAGAAAAIGAIACAAGAAITAIIG 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                   Henedict, William F.
Zhou, Yunli
TITLE of INVENTION: MoDIFIED RETINOBLASIONA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           83.4%; Score 2827.4; DB 10; Length 3161; 99.6%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Arnold, White & nurkee SIREEL: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPERFNUE/CHONTRET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75 TA 1869, F22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER, IBM PC Compatible OPERATING SYSTEM: PC-DOS∕MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE DESCRIPTION: SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA: APPLICATION NUMBER: 097626,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 41 071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-Dec-1999
                                                                                                                                                                                                                              Application US/09169522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MELLIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGIH: 3161 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALLORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMALLON FOR SEQ 1D NO: 44:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: 7..2397
                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                      Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PubbloCY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
21P: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
                                                                                                                                                                                                                                               Paren No. USZG020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILLING DALE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   I ELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lowal Similarity
                                                                                                       3387 GALAGI 3392
                                                                                                                                          1442 GATAGT 1347
                                                                                                                                                                                                            US-09-469-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             114 119-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matribes 2834;
                                                                                                                                                                                                                                  Sequence 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CONTY Match
                                                                                                                                                                                               RESULT 15
                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
```

```
1088 TACTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAAAATTTGCTAAAGCTGTGG 1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1148 GACAGGITGIGGAAAAIIGGAICACAGGGAIACAAACHGGAGHCGCH3FAHACC 1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108 DATIAN PRABIPPATOFTPANATOACAAQAACGATRICCATTCAAAALTTINGGA 1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 977 GAGTAATGGAATCCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGCA 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1268 ANTIPTGANIGATANTITIFITATAFSPOTIATESSASTGOSCHOPSASSITSIAN 1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1928 TGGCCACATATAGCAGAAGTACATCTGAGAAIGTIGAGITGIGGAAGAGAGTIGIGITIGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1388 PALGGAL GLGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGAFGAAGTL 1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1448 ITAICAAAGCAGAAGGCAACTIGACAAGAAAATGATAAAACATTTAGAACGAIGIGAAC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1337 AATCAAAGGACCAAAGGACCAACTGAICACCTTGAAICTGTGTGTCTCTTAAICTIC 1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1628 CICICCAGANAANCACACIGCAGCAGAIANGIATGIITGEGCTGTAAGAICTGCAAAGA 1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1688 AAAAAGGTTCAACTACGCGTGTAAATTCTACFGCAAATGCAGAGACACAAGCAACCTCAG 1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1748 CCTTCCAGACCCAGAAGCCATTGAAATGTAQGTGTGTTTGACTGTTTTALAAAAAAAAAGLG1 1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTAGGACTGTTATGAACACTAICCAACAAITAAISAIGAITITAAATICAGCAAGIGAIC 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1028 AAGCTTTGAGAAAATCTGATTTGCTATTTTAACAAGTGCAGAGTGAATCCAAAAGAAGIA 1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1217 TTATCAAAGGAGGAAGGGAAGTTGAGAAAGAGATAAAAGATTTAGAAGGALGTGAAG 1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1568 AATGAAAGGAGGGAGGAGGAGGAGGAGTGAGGTTGAATG1GGTTGTGGTG1FGTG11G 1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  728 ATTTTATACCTTTTATGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTG 787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               788 AAAATCITICIAAACGAIACGAAGAAAITTAICITAAAAATAAAGAICIAGATGCAAGAT 847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              557 AAAATCTITCTAAACGATACGAAGAAAITIATCTIAAAAATAAAGATCTAGATGCAAGAT 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   848 TATETTEGGATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTTGAACACAGA 907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              908 GAACACCACGAAAAAASIAACCITGAIGAAGAGGIGAAIGIAAITCCICCACACACCA. 967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          737 ITAGGACTGITATGAACACTATCCAACAATTAATGATTTAAATTCAGCAAGTGATC 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              797 AAGCIICAGAAAAIGIGAIIIGCIAIIIITAACAACIGCACAGGAAIGCAAAAGAAAGIA 856
KKR AACTIICIIÇIIGIAAAGAAÇATGAATGTAATAIAGATCAGGIQAAAAAIGTITATITCAAAA 727
                                                                                                                                                                                                                                                                                                                                                              HILLER HELLER HE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1157 CATGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATGGAAAGTT
                                                                          968
```

Tue Jan 21 10:02:46 2003

1576	1867 1636	1927 1696	1987 1756	2047 1816	2107 1876	2167 1936	2227 1996	2287 2056	2347 2116	2407 2176	2467 2236	2527 2296	2587 2356	2647 2416	2707 2476	2767 2536	2827 2596	2887
PETTER FEET FEET FEET FEET FEET FEET FEET	APPGRETAGECTATE CONSTITATATACA LITERISAA ORDET CONTROL ORDET CARGO CONTROL ORDET CONTROL OR CONTROL ORDET CONTROL	AATTAGAACATATCATCTGDACCCTTTTCCAGCACACCCGCGAALGAGTATGAACTCA TTTTTTTTTTTTTTTTTTTTTTTTTT	DARAGAPARGEALTIGGACCAAATTATGATGTCTCCATGTATGGAAAGTGA TELLITELLITELLITELLITELLITELLITELLITELL	AGAATATAGACCTTAAATTCAAAATCATGTAACAGCATACAAGGATCTTCCTCATGCTG	HEAGAGACA TICAAACGECTTTCA EAAAGAAGAGGAGTATGATTCTATATAGTAT FEELEELEELEELEELEELEELEELEELEELEELEELEEL	PETATAATTEGETTEATGEAGAGACTGAAAATATTITGAGTATGETTEGAGA TELLITELLETTELLETTELLETTELLETTELLETTELLETTETT	GBONGCTAVITGECANNAMIANOTCANTECTOSAANOCCTANAMITECTAGTA FILLEFELLEFELLEFELLEFELLEFELLEFELLEFELL	CACCCTACGGATICCTGGGGGGACTATATTCGGCCCGGAGGCCCGATATAAAA   11111111111111111111111111111	ETTCAGAAGGEGGCCAACAACAAAAA EGACECCAACATCAACAACTTFAGTATCAA TELETELETELETELETELETELETELETELETELETEL	TROSTGAATCATTOGGGACTTCTGAGAAGTTCCAGAAAATAAATCAGATGGTATGTAACA 	OCGACYGEGEGEGEGAAAGAACEGAAGGAACCAACCECCEAAACCACEGAAAAAC 	TACICTE EGALA FIGAADOA ESACOAGOAGA EGGAAGTAAACA ECCOAGOAGAGTETELETELETELETELETELETELETELETELETELET	COAAATTCARCAGAAACTGGCAGAAATGACTCTCTACTCGAACACGAACAGAAGACAGA 	AAA DAA DA	GLODAPACTO FOLA ACCIPIO GALICATI GLOLO POCAGA POLGACIO PALA ACTETO PER EL	CCAGGITCTGTTATGGCACATTTAATATCTTCAGCTGTTTTGTGGGATATAAAATGTG 	CACATOCAATTOTETICOGO DA LICCTAAGO CACLIGAAA TOTTAGO CACATOTTATA LI	CARGATIGARAATCHGLGTARAATCHGCCALLTARAAAAGTIGTACCAGATIGFTTCCFC
1 1, 1 7	1808	1868 1647	1928 1697	1988 1757	Z048 1817	210H 1877	2168 1947	2228 1997	2288 2057	2117	2408	246B 2237	25.2H 2.297	258H 2457	264B 2417	2708	2768 2547	2828
45	5 3	5 3	5 £	5 3	8 3	5	5 =	55 FF	5 E	5 2	5 ŝ	5 3	5 3	401 1040	\$ \frac{2}{5}	\$ Q	2. 3.	5

```
2597 CAAGATTGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGAAAATGTTGCTC 2656
                                                                                                                      2717 GATAACCCAGGCCTGTCTGACTACTTTGCTTTTTGTAGCATATAGGTGATGTTGCT 2776
                                                                                                                                                                                                               3068 GIGICCIAICIACTICCAAATGCAAITIGAITGACIGCCATICAACAAAATTATCCTG 3127
                                                                                                                                                                                                                                                                           1128 AACTCTTCTCCAAAAALGGATATTAGAAALLAGAAAALAGAAATTACTAALLTTACAATAL 3187
                                                                                                                                                                                                                                                                                                                                    3188 TAGATTTTATTTTACTATTGGAATCTGATATACTGTGTGTTGTTTATAAAATTTTGCT 3247
                                                                                                                                                                                                                                                                                                                                                                                                 4248 TITAATIAAATAAAAGGIGGAAGGAAAGIAIAAAGAIATAAGAIATAGAIA 3307
                                                                                                                                                                                                                                                                                                                                                                                                                          3017 TITAATTAAATAAAAGCIGGAAGCAAAGTATAACCATATGATACTATCATACTACTGAAA 3076
                                                                                                                                                   3008 CTEGTTTTATTAATTTATATGTATATTTTTTTAATTTAACATGAACACCTTAGAAAAT
                                                                                                                                                                    2948 GATAACCCAGGCCTGTCTGACTTTTGCCTTCTTTTTTTTAGATATAGGATGTTTTCTT
                                                                                                         3368 ITITIAAATGAGGATTATTGATAGT 3362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3137 TTTTTAAATGAGGATTAITGATAGE 3161
                                                                                                                                       νδ
•••
                                                                                                                                                                                 Q
                                                           qq
                                                                                                                    g
                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                         ें
                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                         \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DP
DP
```

Search completed: January 18, 2003, 04:25:41 Job time : 120.667 secs

				-	
	,	••	•		

```
(Without alignments)
6107 852 Million cell updates/see
                                                                                                                            January 18, 2003, 04:31:54 ; Search time 65 3343 Seconds
                                                                                                                                                                                                                                                            TPMOKOKMNDSMDTSNKEEK ROS
Gentore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                   nucleic search, using trame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              lotal number of hits satisfying objects parameters.
                                                                                                                                                                                                                                                                                                                                                                                                                                 193868 seqs, 222934149 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                  7.0
                                                                                                                                                                                                                                                          1 MQDSGPEDIPLVRIFFETE
                                                                                                                                                                                                                                                                                                                     Xiapop 10.0 , Xdapoxt
Ydapop 10.0 , Ydapoxt
Fqapop 6.0 , Fqapoxt
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post processing: Minimum Match 0% Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                 US 09 026-459A-29
                                                                                                                                                                                                                                                                                                     HLOSUM6.2
                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                 Fitle:
Perfect score:
                                                                                     M protein
                                                                                                                                                                                                                                                            Sectionics
                                                                                                                                                                                                                                                                                                                                                                                                                                   Searched;
                                                                                                                              Ечп оп:
```

Command line parameters:

Modell-trans-principles

U-6-Tra-1 (1984) - Special Cheverth

U-6-Tra-1 (1984) - Special Cheverth

U-6-Tra-1 (1984) - Special Chever Ch

Published, Applications, NA:\*
1: Zerez, ezpredatizZepupea, 0.507, PUBCOMB. seq:\*
2: Zerez, EzpredatizZEpupea, Vert NPW\_PUB. seq:\* isatabase :

A driv\_G/produta/1/jertigna/PCTUS\_punCoMs\_seq;\*
/cmiz\_b/produta/1/punpina/DOSB\_NEW\_pun\_seq;\*
/cmiz\_b/produta/1/punpina/DOSB\_NEW\_pun\_seq;\*
/cquiz\_b/produta/1/punpina/DOSB\_LOSEW\_pun\_seq;\* Zentz E. Johnsbring Zipolopia, Zhang pribonik pengre-Zentz E. Johnston, Zipolopia, Zibolo, NEW Jells Segre-Zentz E. Zentrada (47. Zentphaz/USI) u Publishom segre-Zentz E. Zeptodata (47. Zentphaz/USI) u publishom segre-Zegrag De Gart ag Espainas usad NEW Pute seq. •
Zegrag De Gart ag Espain pragueste Putements and •
Zegrag De Gart ag Espain pragueste Putements and •

Prof. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

/cqn2\_6/ptodata/1/pubpna/US60\_PUBGOMB.seq:\*

## SUMMARIES

	Description	Sequence 28, Appl	Sequence 1, April	Sequence 143, App	Sequence 7, Appli
	010	US-09-469-522-28	4555 10 US-09 469 522 1	9 US 09-954-531-143	10 08-09 860 211 7
	E018	10	5	- -	2
	Query Match Length DB 1D	3455	5668	4839	56,6,7
æ	Ouery Match		6.66		
	Score	46.14	4509	4609	4599
	Result No.	-	`*	~	7

```
SerPheThrPheThrChuLeuChl.ysAsnI]eGluI]eSerValHisLysPhePheAsn 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               247 EGGITGACTITTAGTGAGGTAGAAAAAGATAGAATGAGTGGGGGTGGATAAATTGTTAAC 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [5] LeuteutysGluileAspihrSerThrLysValAspAsnAlaMetSerArgLeuteutys 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .27 GCTIGGITAACTTGGGAGAAAGTTTCATCTGGGAGGAATTGGGAGGTATATATTCAA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              807 ITACIAAAAGAAATFGATAGCAGTAAGGAAGGTGGTAATGCTATGTCAAGACTGTTGAAG 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 LystytAspVall.cuPheAlai.cuPheSerLysLeuGluArgThrCysCluLeulleTyr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             141 LeuThrGlnProSerSerSerlleSerThrGluIleAsnSerAlaLeuValLeuLysVal 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               141 SertippleThrPheLeuLeuAlaLysClyGluValLeuGinMetGluAspAspleuVal 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      487 ICITGGATCACATTITATIAGCIAAAGGGGAAGTATIACAAAIGGAAGAIGATCTGGIG 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       547 ATTICALLICAGETAATGCTATGTCTTTGACTATTTTTATTAAACTCTCACCTCCCATG 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201 [00] 00] 01 453 0ProTyrLysThrAlaVallleProlleAcnGlySerProArgThrPro 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21 sluProAspFheThrAlaLeuCysGlnLysLeuLysIleProAspHisValArgGluArg 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41 AlairpLeufhrirpGluLysValSerSerValAspClyValLeuGlyGlyTyrileGln 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Al LystystysCluteuTrpClylleCysllePhelleAlaAlaValAspLeuAspGluMet 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              78-459A-29 (1-895) x US-09-469-522 28 (1 3455)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative:
Mismatches:
               APPLICATION NUMBER: 09,026,459
FILING DATE: CURROWN>
ALIGORNEY AGENT (NEOPMATION)
NAME: Hibler, Bavid W.
RESISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: 0TXC:506
IELECOMMUNICATION INPORMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels:
                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION: SEQ ID NO: 28: \alpha + 6.9 \cdot 522 \cdot 28
                                                                                                                                                                  512/418-3000
                                                                                                                                                                                                                                                    LENGIH: 3455 base pairs
                                                                                                                                                                16LEPHONE: 512/418-300
16LEFAX: 512/474-7577
1NF:RMALION FOR SEQ 1D NO: 28:
                                                                                                                                                                                                                                                                                         SIRANDEDNESS: single
                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                          TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                               2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4614.00
100.00%
100.00%
100.00%
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                   h-P-01.0GY: linear
                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                               COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Bost Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \frac{1}{1}
```

```
1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1327 AGGAAACERCTGAATGACAACAITERCATATGTCTFTATGGGGTGCTGCTTTGAGGTT 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1507 AGTITTATCAAAGCAGAAAGCAAACTTGACAAGAAAATGATAAAACATTTAGAAGGATGT 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       401 ValGlyClnClyCysValGluileGlyScrClnArgfyrtyst.cuClyValArgt.cuTyr 420
                                                                                                                                                           221 ArgArgC!rCInAssArgScrAlaArg:ltAlatysClittcuGluAstAspIhrArg110 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           391 GorileLeutysArgValiysAspileGlyTyrilePheLysGlutysPheAlatysAla 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 TyrArgValMetGluSerMetLeuLysSerGluGluGluGluArgLeuSerIleGlnAsnPhe 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          441 SerLysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGluVai 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 461 ValMetAlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSer 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481 PheProTrp11eLeuAsnValLeuAsnLeuLysAlaPheAspPhcTyrLysVal11eGlu 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      54: TypGlnSerLysAspArgGluGlyProThrAspHicLeuGluSerAlaCyaProLeuAsn 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             561 LeubroLeuGlnAsnAsnHisThrAlaAlaAspMet.TyrLeuSerProValAraSerPro 580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         261 LysAsnPhcIleFroPheMetAsnSerLeuGlyLeuValThrSerAsnGlyLeuProGlu
HILLE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      667 AGGCGAGGTCAGAACAGGAGTGCACGCATAGCAAAACAACTAGAAAATGATACAAGAATT
                                                                                                                                                                                                                                                                                                                                                                  241 TloGluValLeuCysLysGluHisGluCysAsmileAspGluValL,sAsmValTyrPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   727 ATTGAMGT INTIGITAMAGAMGAMGAMIGTAMINIAGATGAGGTGAMAMATGTITALTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               787 AAAAATTITATACTITTATGAATTCICTIGGAGITGIAACAICIAATGGACTICCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     847 GITGAAAATCITICTAAACGATACGAAGAAATITATCITAAAAATAAAGATCTAGATGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1207 GTGGGAMAGGGTTGTGTMGAAATIGGAIGAGAGGAAIAGAAACTIGGAGITGGGTIGIAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               281 ValGluAsnieuSeriysArgTyrCluGluHefyrieulysAsniysAspieuAspAia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 ArqLeuPheLeuAspHisAspLysThrLeuGlnThrAspSerIleAspSerPheGlnThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      321 GlnArgThrProArgLysSerAsnLeuAspGluGluValAsnVallleProProHisThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 AspGlnProSerGluAsnLeuIleSerTyrPheAsnAsnCysThrValAsnProLysGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             967 CAGAGAACACAGAAAAAAAAAAATACATEGAAGAGETGAAIGIAAIIGGIG ACACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         341 ProValArgThrValMetAsnThrIIcGInGInLeuMetMetIIcLeuAsnSerAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
```

```
861 GluserLysPhedInGlnLysLeuAladluMetThrSerThrArqThrArgMetGlnLys 880^\circ
                                                                                                                                                                                                                                           2407 TCAATTGGTGAATCATTCGGGACTTCTGAJAAGTTCVAGAAAATAAATAAAFAGAGGGTAFT 2466
1687 CTICCTCTCCAGAATAATCACACGCAGAGATATGTATCTTTCTCCTGTAAGATCTCCA 1746
                                                  1987 (TICATGAGAGACAGGCATLIGGAGCAAATTAIGAIGTIGGATGTAIGGCATATGGAAA 2046
                                                                                                                                                                                                                                                                                                                                                                                                                              2047 GTGAAGAATATAGACCTTAAATTCAAAATCATTGTAAGAGGATAGAAGGATCTTCCTGAT 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2227 ACCAGGCCCCCTACCTTGTCACCAATACCTCCATCCCTACAACCCCTTACAAGTTTCCT 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2527 AAACHAGGELTHGATATHGAAGNATCAGATGAAGAGAGAGAGAAGTAAACATCHCCCAGGA 2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      821 AsnScrAspArqValLeuLysArgScrAlaGluGlyScrAsnProProLysProLeuLys 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721 ValFheTyrAsnSerValPheMetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSer 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         741 ThrArgProProThileuSerProlleProHisileProArgSerProTyrLysPhePro 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781 LystleSerGluGlyLeuProThrProThrLysMetThrProArgSerArgIleLeuVal 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      801 SerifeGlyGluSerPheClyThrSerCluLysPheGlnLysIlcAsnGlnMctValCys 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841 LystenArgPheAspIleGluGlySerAspGluAlaAspGlySerLysHisLeuProGly 860
                                 581 tystystystystyserthribrargValAshSerTbrAlaAshAlaGlufhrGluAlaThr 600
                                                                                                      sol serAlaPbetlaThrolaLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLys 620
                                                                                                                                                                             62] VallyrArdicuAlalyricuArgicuAsnihricuCysGluArgicuiScrGluHis 640
                                                                                                                                                                                                                                                                                                                   661 LeumetArgAspArgHisLegAspGlnIleMetMetCysSerMetTyrGlyIleCysLys 680
                                                                                                                                                                                                                                                                                                                                                                                        681 VallysAsnileAsploutysPhotysileHeValthrAlaTyrtysAsplouProHis 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                               701 AlavaldindluthrPheLysArqValLeulleLysGluGluGlufyrAspSerileLle 729
                                                                                                                                                                                                                                                                                                                                                                                                           881 ChriysMet AshAspSet Met AspThrSet AshLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application US/09469522
Eatent No. US20020151461Al
GENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                               US 09 469 522 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ē
                                                                                                                                                                                                   â
                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                        \stackrel{>}{\sim}
                                                                                                                                                                                                                                                                                                                                                                                                                      ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
```

Xu, Honq Ji Hu, Shi Xue

APPLICANT:

```
229 TGCTTAACTTTGGGAGAAGTTTCATCTGTGGATGGAGTATTGGGAGCTTTATALTCAAAAG 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               82 PheThrPheThrGlubeuGiniysAsnileGlulleSerValHisLysPhePheAsnLeu 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42 TrpLeuThrTrpGluLysValSerSerValAspGlyValLeuGlyClyTyrTiethnLys 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 GluAspSerGlyProGluAspLeuProLeuValArqLeuGluPheGluGluThrGluGlu
                Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-026-459A-29 (1-895) x US-09-469 522-1 (1-3555)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches:
                                                                                           CORRESPONDENCE ADDRESS: ADDRESSE: ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER, US/07/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: *Unknown:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
                                                                                                                                                                                                                                                                         COMPUTER: 18M PC compatible OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: 7..2790
SEQUENCE DESCRIPTION: SEQ. ID NOT 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 41,071
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 3555 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: < Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W.
                                                                                                                                   STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IYPE: nucleic acid
                                                                           NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4609.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        868.66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
                                                                                                                                                                                             COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                          CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KHY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alignment, Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
```

```
2.18B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        622 TyrArgLeuAlaTyrLeuArgLeuAsnThrLeuCysCluArgLeuLeuSerGluHisPro 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             642 GluLeuGluHistlelleTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluieu 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             802 iledlydluSerPhedlyThrSerdluLysPhedlmJysTleAsndlnMetValCysAsn 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              922 SetAsparyValloulysArySetAlaGluGlySetAsmiroProlysProleulyslys 841
1489 ATGGCCACATATAGCAGAAGIACAICTAGAAAICTIGAAICTGGAACAGACHGICLLE
                                                                                                                482 ProTrpileLeuAssValleuAssnLeuLysAlaPhcAspFheTyrLysVallleSluSer
                                                                                                                                                                                                                                                                     502 PhotletysAlaCluClyAsnLcuThrArgCluMctlleLysHishwuGluArgCysClu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               582 (ystysc)yScrthrThrArgValAsnScrthrAlaAsnAlaGluthrGlnAlaThrSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2029 GAATTAGAACATATCAGACCCTTTCCAGCACACCCICAGAATGAGTATGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2269 PECTATARCHOCHOTTGATGCAGAGAGAAGAAGAATATTTGGGGTATGCTTGGAG
                                                                                                                                                                                                                                                                                                                                             1609 TITATCAAAGCAGAAGGCAACTTGACAAGAGAAATGATAAAAACATITAGAACGAIGIGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              542 GloSerlysAspArgGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              562 ProLeuGinAsnAsnHisThrAlaAlaAspMetlyrLeuSerProValArgSerProLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           702 ValCinGluThrPhcfgsArgValLcuTlctgsGluGluGyrAspScrlleTleVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               722 PheTyrAsnSerValPheMetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSerThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            742 ArgbrotrombrisaSerbrottebrothsi) abboataSer Protytigsphebroser [HBH] [HHH] [HH] 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2329 AGGGGGGTACCITGTCACCAALACCICACALICCICGAAGGCCTTACAAGTTTCCTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                762 Serbrolegdarg RebroGlyGlyAsanleTyr ResentroleggsSerbroTyriys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2389 Traccentardeatherigasesaacatetatatheseccetsaasactestalaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         782 IleSerGluGlyLeuProThrFroThrLysMetThrProArqSerArqIleLeuValSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2449 ATTTCAGAAGICIGGCAACACAACAAAAATGACIGCAAGAIGAGAAGATCIIAGIAIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2509 AITGGTGAATCATTCGGGACTTCTGAGAAGITCCAGAAATAAAICAGATGGIATGIAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dρ
                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ġQ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ξŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ōλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ο.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ō.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             οÿ
```

S

```
262 ASERBETTER OFFICIAL ASERTANDS CROSS STANDARD AND SECTIONAL PROPERTY OF THE THE PROPERTY OF THE PROPERTY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960 GAAGTICTCTGTAAAGAACATGTAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAA 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080 GAAAATGTTTGTAAAGGATAGGAAGAATTTALGTTAAAAATAAAGATGTAGATGGAAGA 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1140 TTATTTTGGATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1500 CGAGTAATGGAATCCATGCTTAAATCAGAAGAAGAAGGATTATGCATTCAAAATTTTAGC 1559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             422 ArgValMetCluSerMetLeuLysSerGluGluGluArgLeuSerlleGluAshPheSer 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              442 LysLeufeuAsnAspAsnTlePheHisMetSerLeuLeuAlaCysAlaLeuGluValVal 461
302 touPheLeuAspHisAspLysThrLeuGlnThrAspScrllcAspScrllc(TLahlatin 12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       362 GInProSerGluAsnieuileSerTyrPheAsnAsnCysThrValAsnFrotysGluSer 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        462 Met.AlaThrTyrSerArqSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhe 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           162 Trp11eThrPheLeuLeuAlaLysGlyGluValLeuGlnMetGluAspAspLeuVallIle 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780 TCATTTCAGITAAIGCIAIGTGICCITGACIAIITIAITAAACHCHCACCICCCATGIHG 849
                                                                                                                                                                             122 TyraspVallcoPbcAlaLcoPhcSertyst.ruGluAr411.CysGluFeulleTyrLeu 141
                                                                                                                                                                                                                                                                                                                                                                                                   142 ThrGlnProSerSerSerHeSerThrGlaffeAsnSerAlabeuValLeutysValSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     202 (colyschaptyrlysthralava). Lebrel Feasiclyse in cargoberedary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     222 ArgGlyGlmAsnArgSerAlaArgIleAlaLysGlmLeuGluAsnAspThrArgIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          242 GluVallouCystysCluHisGluCysAsrflCAspCluVallysAstVallyrPhattya
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      342 ValArqThrValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnSerAlaSerAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                402 GlyGlmGlyCysValGluileGlySerGlmArqTyrLysLeuGlyValArqLeuTyrTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          άĠ
                                                                                         90
                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \dot{o}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \ddot{c}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       THILE OF INVENTION: Process for identifying Anti-Cancer Therapeutic Agents Using Cand
THILE OF INVENTION: Gene Sets
FILE REFERENCE: 689290-77
                                                                                                                                                                                                                                                                                                     2569 AGCGACGTGTGGTCAAAAGAAGTGGTGAAGGAAGGAAGCGTGGTAAAGGAGTGAAAAA 2628
                                                                                                                            26.29 (TARDECTTICALATTICAACCACACCACCACCACCACCACCACATOTACCACACATOTACAACACACATOTACAACACACATOTACAACAACAACAACAACAACAACAACAACAACAACAAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   842 LeuArqPheAspileGluGlySerAspGluAlaAspGlySerLySHisLeuProGlyGlu 861
                                                                                                                                                                                                                                                             862 SerLysPhedlaGlnLysLeuAladluMe(ThrSerThrArgThrArgMetGlnLysGln 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420 AAAAAGGAACTGTGGGGAAATCTGTATCTTATTGCAGGCACCTGACATGAGATGTCG 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                42 TrpLesThtTrpGluLysValSerSerValAspGlyValLeuGlyGlyTyrIleGlnLys 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 GlnAspSerGlyProGluAspLeuProLeuValArqLeuGluPheGluGluThrGluGlu 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22 ProAspPhothralaLouGysGlnLysLouLysTloProAspHisValArgGluArgAla 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2749 AAAATGAATGATAGCATGGATACCTCAAACAAGGAAGAAA 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                  882 LysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09 026 459A-29 (1-895) x US-09-954-531-143 (1-4839)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 118/60/233,133
PRIOR PELLING DATE: 2000 09-18
PRIOR APPLICATION NUMBER: 18/60/234,009
PRIOR APPLICATION NUMBER: 18/60/234,034
PRIOR APPLICATION NUMBER: 18/60/234,034
PRIOR APPLICATION NUMBER: 18/60/234,569
PRIOR APPLICATION NUMBER: 18/60/234,569
PRIOR APPLICATION NUMBER: 18/60/234,569
PRIOR APPLICATION NUMBER: 18/60/234,567
PRIOR APPLICATION NUMBER: 18/60/234,567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/954,531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 143, Application 03,9399545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ 1D NOS: 1392
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4609.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36.838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : Patent No. US20020165180A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Weaver, ZOE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT FILLING PATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US 09 954 541 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05 09 954 531 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENCTH: 4839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Querry Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                         ÷
                                                                                                                                                                                                                                                                                                                                     ت
                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
```

```
P. S. ATGGOON ATATAGGAGARACTACAGAATGTTGATGATGATGATTGTGT 1679
                                                                                                                                                                                                                                                  1889 COATGGATICTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGT 1739
                                                                                                                                                                                     1740 TITALCAAAGCAGAAGCAACTIGACAAGAAAIGAITAAAAACAITITAGAACGAIGTGAA 1799
                                                                                                                                                                                                                                                                                                                                                                                                                      2150 GAALIAGAAYALATOATOTGGAAYOOTTITTOGAAGAAAGAGAGAAATAATAAATGTG 2219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      246.0 AGGCCCCTACCTTGTCACCAATACCTCACATTCCTCGAAGCCCTTACAAGTTTCCTAGT 2519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           482 ProfrpfleteuAsnValteuAsnfæulysAlaPheAspPheTyrtysValtTeGluSer 501
                                                                                                                                                                                                                              12 HisArqIleMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLys 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                **2 LysLysGlySerThrThrArqValAsnSerThrAlaAsnAlaGluThrGluAlaThrSer 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42 AraproProThrLeuSerProffeProHisTleProArqSerProTyrLysPheProSer 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    742 HeserGluGlyLeuProThrProThrLysMetThrProArgSerArgHeLeuValSer 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   982 PhethelysAlaGluGlyAssLeuThrArgGluMetileLysHisLeuGluArqCysGlu 521
                                                                                                                                                                                                                                                                                                                 §42 @luSerlysAspArgGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeu 561
                                                                                                                                                                                                                                                                                                                                                                                                14.2 ProleudlaAsaAsaHisThrAlaAlaAspMetTyrLeuSerProValArgSerProLys 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  422 TyrArdLeuAlaTyrLeuArdLeuAsnThrLeuCysGluArgLeuLeuSerGluBisPro 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (42 GluLeaGluHisIlelleTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeu 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                682 LycAsulleAspLeuLysPheLysIleIleValThrAlaTyrLysAspLeuProHisAla 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   762 SerProLeuArglleProGlyGlyAsulleTyrlleSerProLeuLysSerProTyrLys 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     * 2 [LectiveluserPhentlyThreepoletysPhedlaLysIleAsaclaMetValCysAsp 82]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 702 ValidladluThrPheTysArqValIeuTJeLysGluGluGluTyrAspSerIleIleVal 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---
```

```
2700 AGGGACGGGGGTAAAAAAAAAGGGTGAAGGAAAGGAAGGCGGCTAAAGGAGGAAAAAAA 2759
                                               942 | cuArgPbcAspiled!uC!ySerAspGluAlaAspC!ySer!ySHisLeuProGlyClu 861
                                                                                                                                            862 SerLysPheGlnGlnLysLeuAlaGluMetThrSerThrArqThrArqMetGlnLysGln 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Recombinant Adenoviral Vector and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSER: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                      2880 AAAATGAATGATAGCATGGATACCTCAAACAAGGAAGAAA 2921
                                                                                                                                                                                                                                         882 LysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                015940-000920US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mote- "retinoblastoma tumor suppressor" segmence Description: SEq ID No: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 139.12925
OTHEF INFORMATION: /freduct "RB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: HS/09/860,211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/328,673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 08/142,669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 08/233,669
FILING DATE, 26-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-EOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 18-May-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Gregory, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 25-0CT-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE INTRACE. NUMBER
                                                                                                                                                                                                                                                                                                                                                                                   Sequence 7, Application US/09860211
Patent No. US20020137212Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Maneval, Daniel C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Smith, Timothy S. REGISTRATION NUMBER: 3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY / AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS, single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COPPESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4599.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-860-211-7
                                                                                                                                                                                                                                                                                                                                                            US-09-860-211-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score:
                                                                                                                                                                                            <u>a</u>
                                                                                                                                                                                                                                         õ
```

5 7 5	ocal Mate	nmilarity: 99. 	30 30 40 	Conservative; Mismatches; Indels: Gaps:	o~00	
5	976	159A 29 (1 895) x	098-60-50	211.7 (1.2995)		,
	2 241	Inaspserdiyerodi Hillilililili NGGACAGOGGCCGGA	Asplementol	euvalargiendinp 	PhedludluThrdludlu 	21
	22	ProAspPbethralatic FELLITITITI CCTGATTTAGTGCAFF	acyschulys 	Leutys HeproAspH 	isValArgGluArgAla 	41 360
	4.2	CeuThrTrpGluLy HTTTTTTTTTT HEARTIGGGAGA	sValserserV 	SATE	lyglytyrileglnLys 	61 420
	62 421		ylleCysilePhel Hilliliiii AATCTGTAICTTT	CITCALAALAVAL HILLIIIIIIII FATTGCAGCAGTI	oleuaspGlume 	81 480
	8.2 48.1	PherbribethrotatosofintyaAshTi 	uGlnLysAsnll HIIIIEIIII ACAGAAAAAGAI	rGlulleSerVall 	fistysphepheasnteu HIIIIIIIII Zataaattertaaetta	101
	102 541	Lys  -	rSerThrLysVa 	alAspAsnAlaMetSer 	erArgLeuLeuLysLys 	
	122	fyraspvalleupheal 	alcuPheSerts 	rsLeuGluArgThrCy 	rsclutteu HTHHH STGAACIT	141
	142 661	Thrdlaprosersersertle [HTH111]]]]]]HHHH ACACAGCAGTICGATA	rtleSerThrG  	ProSerSerTleSerThrGlulleAsnSerAlal 	LeuVall.eul.ysvalSer 	161 720
	162 721	TrpIleThrPheLeuLe 	LeuAlaLysGlyGl 	luValLeuGlnMetG) 	SluAspAspLeuVallle 	181 780
	182 781	SerPheGInteaMcFt.ee23 	/sVa   L/c                 TGTCCT	caspiyribellelysi 	Stystesser Profromethes	201 840
	202 841	Leutyschuprofyrty Hillininini Crcaaagaaccarataa	sThrAla HTTTH AACAGGI	rolleAs: 	ASBCTYSCRPTOALGThriftoAlg	221
	777	ArgetystaAsaArgset TELLITETTTTTT CGAGGTGAGAAGAGG	cAlaAr HHHH FOCACO	JabyssinLeusinAsaAspThrA 	saAspThrArqllelle FEEFFEEFEEFEEFEEFEEFEEFEEFEEFEEFEEFEFEFE	241 960
	242 961	Clavatteer/ystyschuhi Tillillillillillit GAAGTFCTGTAAAGAAG	SCLUCYS           \TGAATGT	-:- <u>- [</u>	allysasnvaltyrebelys 	261 1020
	26.2 1021	Asurbeilerrebegeta 	SpSerteud 	71.00Va.11   1111111   ACT IGTAA	sndlyLeuProdluVal 	281 1080
	282	GJuAShLenSerLysArd HTTHHHHHHHHHHHHH GAAAATCTTIGTAAAGG	4Tyrcladlad +++++++++++++++++++++++++++++++++	eTyrLe         	ysAspLeuAspAlaArg 	301 1140
	402 1141	LeupbeleuAsphisAs iiiliibiiiiiiiiiii TTATTITTGGATGAIGA	plysthrieud                	nThrAspSerlle 	AspSerPheGluThrGln 	321 1200
	773	ArgThrProArgLysSe	SSerAsnLeuAspG1		leProProHisThrPro	341

```
2041 GCCTTCCAGANCCAGAAGCATGAAATCTAVCTCTCTTTCACTGTTTTATAAAAAGTG 2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2281 AAGAATATAGACCTTAAATTCAAAATCATTGTAAGAGTATGAAGGATGTTGTTGATGCT 2340
1201 AGAACACCACAAAAAGTAAGCTTGAIGAAGAGGTGAAIGIAATTGTTGCACACACACACICA 1260
                                                             2261 GTTAGGACTGTTATGAACACTATGCAACAATTAATGATGATTTTAAATTGAGGAAGTGAT 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1921 CCPCPCCAGAAFAAFCACACTGCAGCAGATATGTAFCFFFCCCCFGFFAGATFFFCAAAG 1980
                                                                                                                                                                                                                                                                            422 ArgValMetGluSerMetLeddysSerCluGluGluAlydauSerileGluAsuFlaser 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Met. AlaTht Tyr Ser Arg Ser Thr Ser Gla As a Lead Sp Ser Gly Thr Aspleu Ser Phe 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            502 PhelleLysAlaGluGlyAsoLeuThrArqSluMetIleLysHisLeuClaArqCysGlu 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysLysGlySerThrThrArqValAsuSerThrAlaAsnAlaGluThrGlnAlaThrSer 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      602 AlaPheClaThrGlnLysProLeaLysSerThrSerT.cuSerT.cuProTyrT.ysTysTysT. 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  622 TyrArqLeuAlaTyrLeuArqLeuAsnThrLeuCysGluArqLeuLauSerGluHisPro 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              642 GluLeuGluHisIleIleTrpThrLeuPheGlnHisThrLeuGluAsnGluTyrGluLeu 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      522 HisArgIleMetGluSerDeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              562 ProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArqSerProLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              662 MetArqAspArgHisLeuAspGlmileMetMcCysSerMetTyrClytLeCysLysVal
                                342 ValArgThrValMetAsnThrIleGinGinLeuMetMetileLeuAsnSerAlaSerAsp
                                                                                          GInProSerGluAsnLeutleSerTyrPheAsnAsnCysThrValAsnProLysGluSer
                                                                                                                                                     382 IleLeuLysArqValLysAspIleGlyTyrIlePheLysGluLysFhaAlaLysAlaVal
                                                                                                                                                                                                                  402 OlyGlodlyOysValGlufleGlySerGlnArlTyrLysLeuGl,ValArlLeuT,iT,L
                                                                                                                                                                                                                                                                                                                                           442 LysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGluValVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
a
                                                             d
                                                                                                                                                                                  9
                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                       a
C
                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \tilde{O}_{Y}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ^{\circ}_{\Sigma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                ò
                                                                                           οy
                                                                                                                       a
                                                                                                                                                       ô
                                                                                                                                                                                                                 â
                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                               οż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
2281 CTACCETTGATATEGAAGAEGAAGAAGAAGAAGTAAAACAEGACAGAGAAGA 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2821 ICCAAATITCAGCAGAAACIGGCAGAAATGACTTCTACTCGAACAGGAATGCAAAAGCAG 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         842 LeuargPheAspTLeGluGiySerAspGluAiaAspGlySerLysHisLeuProclyGlu 861
722 PheTyrAsnSerValPheMetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSerThr 741
                                                                                                                                                 742 ArgProProThrLeuSerProIleProHissleProArgSerProTyrLysPheProSer 761
                                                                                                                                                                                                                                                                                                   782 HeSerGluOlyLeuProThrProThrLysMetThrProArgSerArgHeLeuValSer 801
                                                                                                                                                                                                                                                                                                                                                                            802 [Text] voluSerPheolyThrSerGloLySPheGloLys] [eAsnothmerValPysAsh 82]
                                                                                                                                                                                                                                                                                                                                                                                                                                                       822 SerAspArgValleuLysArgSerAlaGluGlySerAsnProProLysProLeuLysLys 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       862 SerLysPheGlnGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysGln 881
                                                                                            2461 ASGCCCCTACCTTCTCACCAATACCTCACATTCCTCCAACCCCTTACAACTTTCCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: MODIFIED RETINOBLASTOMA THMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUFIWARE: Patentin Release #1 0, Version #1 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2881 AAAATGAATGATAGCATGGATACCTCAAAGAAAGAAGAAAA 2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  882 LysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 7097469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC COmpatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Benedict, William F
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 22-Dec-1999 CLASSIFICATION: // rinknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application 92,09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: <Unknown>
ALTORNEY ZAGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: P.O. Box 4433
CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES, 51 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READARIE FORMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shi - Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-469-522 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No. US20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                            ŝ
                                                                                                                                                   ŝ
                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
```

```
82 PherhrPheThrGluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeu 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      122 TyrAspValLeuPheAlaLeuPheSerLysLeuGluArgThrCysGluLeulleTyrLeu 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     142 ThrGlnProSerSerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSer 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               162 TrpUcthrPhcLeutewAlatysGlyCloValle_GCinM.tGluAspAspLeuVall16 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              589 IGGATCACATTTTATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGATCTGGTGATT 648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           202 LeulysGlabroTyrLysThrAlaValileProfleAsuGlySerFroArgThrFroArg 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        222 ArgolyGlmAsnArgSerAlbArgIleAlaLysGlmLeuGluAsnAspThrArgIleIle 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    42 TrpLouThrTrpGloLysValScrScrValAspClyValLouClyClyTyrIIcClnLys 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22 ProAspPheThrAlaLeuCysGlnLysLeuLysIleProAspHisValArqGluArqAla 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 GlnAspSerGlyProGluAspLeuProLeuValArgLeuGluBheGluGluThrGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         102 LouigsClufleAspThrScrThrLysValAspAshAlaMetScrAighdiadigsigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-026-459A-29 (1-895) x TS-09-469 522-50 (1 3554)
                                                                                                                                                                                                                                                                                                                                Conservati.e:
Mismatches:
                            PEFERENCE/FOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                    Matches:
                                                                                                                                                                                                                                                                                                                                                                 indels:
                                                                                                                                                                                                                                                                                                    ength:
                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID NO: 50:
                41,071
                                                           TELEPHONE: 512/418-3000
THLEFAX: 512/474-7577
                                                                                                                      LENGTH: 3554 base pairs
NAME: Hibler, David W.
KEGISTRATION NUMBER: 4
                                                                                                                                                      STRANDEDNESS: single
                                                                                          INFORMATION FOR SEQ 1D NO: 50:
                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                         TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                              4599.00
99.78%
99.678
                                                                                                                                                                          FOPOLOGY: linear
                                                                                                                                                                                                       NAME/KEY: CDS
                                                                                                                                                                                                                      LOCATION:
                                                                                                                                                                                                                                                                                                                              For work Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                  US-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                             Query Match.
                                                                                                                                                                                                                                                                                                  Pred. No.:
                                                                                                                                                                                                                                                                                                                   Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      χο
---
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ë
```

828 261	888	281 948	301 1008	321 1068	341 1128	361 1188	381 1248	401 1308	421 1368	441 1428	461 1488	481 1548	501 1608	521 1668	541 1728	561 1788	581 1848	601
	HZFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	26.2 Asnither Hebrio PheMet AsniSer Leugly (Leuvalthr Ser Asnicly Leupro Gluvalthr Berling)   Hebrio	282 GIDASELCOSCELYSAEGEYEGIOGIGHEEYERSULYSASELIYSASELCOASPALAAFG FELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTE 949 GAAAALCEETCAAAGGALACGAAGAAATTAICETAAAAATAAAGGEGAGAGAAGA	402 LeuphelauAspHisAspLysThrLaudInThrAspSerIleAspSerPhedIuThrGIn   FEHTHELLITHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHT	422 And Thi ProAndigs Son Asole (a Asole (a Dava LAS)   11   11   11   11   11   11   11	44.2. Valacid BrivalMeckashibi Hedind InterMetti Pelenash Serala Serala Serasp   HTTFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	662 GIDPFOSPEGIAGNI POLI POSPTYTPPPAGGGGGGGGGGGGTFFOT SEPTOLYSGIASEL ITTELLITELLITELLITELLITELLITELLITELLI	8BZ IICLOULYSAFQVALLYSASDILODLYYFILCOPICLYSCULLYSPOCATALYSATAVAL 	402 GLYGLIGELYCYSVALCEULLECTYSGEGINAEGTYFLYSTGGUGLYVALAYGLGGLYFTYF TELLTELLELLELLELLELLELLELLELLELLELLELLEL	4.2.2 ArqValMetGTuSerMetLeuLysSerGTuGTuGTuGTuArqLeuSerTTeGTuAsnPheSer 	442 Tystententashaspash LeptehismetSertententagysalatenGluValVal FELLELLELLELLELLELLELLELLELLELLELLELLELL	46.2 Met Allathriyi Ser Arqser thiser dinasnicuaspserdiyibi aspleuser Phe 	482 ProfipileLegabbyVall.euAsniceuLysAlaPheAspPheTyrLysValileGluSer 	502 PhysicitysAlaGluGlyAsnicoThratgCluMctifelySHistcoGluargCysGlu 111-111111111111111111111111111111111	5.22 HisArqileMetSinSerLouAlatrplewSerAspSerProJeupheAspLeuteluys ittittittittittittittittittittittittitt	542 GlaserLysAsparagludiyProThrAspilisLeuGluSerAlaCysProLeuAsnLeu 	562 ProteudinasnasniisThrataalaaspwettyricuserprovalargserprolys 	582 1.781.78617Sev1br1brarqValAsnSev1brAlaAsnAlaGiuTbrGlnAlaTbrSev 
3 3	=======================================	Š €	5 2	5 1	5 3	5 3	5 3	5.5	5 3	5 =	5 3	5 = 2	5 3	5 1	57	5 =	5 3	5

```
2029. GAATTAGAAGATATGALGTGGAGGCTTTTTGCAGGACACCGGCAGAATGAGTGCTAGAACTGC 2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2689 TCCAAATTTCAGCAGAAACTGGCAGAAATGAYTCTACTGGAACAYGAATGYAAAAGACA 2748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2209 GTFCAGGAGACATTGAAAGGIGTITTGATGAAAGAAGAGGAGTATGAFTGTATTATAGTA 2268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ### HELLITTELLE | HELITTELLE | HELLITTELLE | HELLITTELLE | HELLITTELLE | HELTTELLE | H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2509 ATTGGTGAATCAITCGGGACTTCTGAGAAGITCCAGAAAIAAATCAGAGGGTATGTAAAC 2568
1909 GCCTICCAGAGGGAAAGCAIGAAAIGTAGCICICITICAAGIGIITAAAAAAAGIG 1968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2149 AAGAATATAGAGCTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCT 2208
                                                                    642 GluLeuGluHisIleIleTrpThrLeuPheGlnHisThrLeuGluAsuGluTyrGluLeu 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       662 MetArqAspArqHisLeuAspGlnIleMetMetCysSerMetTyrGlyIleCysLysVal 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     742 ArgProProThrLeuSerProlleProHislleProArdSerProTyrLysPheProSer 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             842 LeuArqPheAspIleGluGlySerAspGluAlaAspGlySerLySHisteuFreGlyGlu 861
                                                                                                                                                                                                                           622 TyrargicualatyricuargiccasethrizeCysCluargizutzaterGiaHistro 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               702 ValGlnGluThrPheLysArqValLeulleLysGluGluGluTyrAspSerfletleVal 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         762 SerProLeuArgileProdlyGlyAsmileTyrileSerProLeuLymSerFroTyrLys 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           782 IleSerGluGlyLeuProThrProThrLysMetThrProArqSerArqIleLauValSer 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       822 SerAspArqValLeuLysArqSerAladludlySerAseProProLysProLysLys 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               862 SerlysPheGlnGlnLysLeuAlaGluMetThuSerThrArgThrArgMetGlnLysGln 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: MODIFIED RETINGBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2749 AAAATGAATGATAGCAIGGATACCICAAACAAGGAAGAAA 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     882 LysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Sequence 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ПP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       င်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
```

```
83 threhelhrGluLenGluLysAsnileGluIleSerValHisLysPhePheAsnLeuLeu 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           250 AAAGAAALIGATAGGAGLACCAAAGTIGATAATGCTATGTCAAGACTGTTGAAGAAGTAT 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22 AspendentalaloudysGinlysLoulyslleProAspHisValArgGluArgAlaTrp 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10 GAITITACIGCAITAIGTCAGAAATTAAAGATACCAGATCATGTCAGAGAGAGAGTTTGG 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-1-17861u11eAsp1hrSerThr1ysVa1AspAssAlaMetSerArg1cu1.cu1,ysf1yr
                                                                                                                                                                                                                  SOFIWARE: Patentin Pelease #1 0, Versien #1,30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98 114 1126-4544-24 (1 895) x 18 19 469 522 39 (1 3392)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches:
                  ADDRESSEE, Arnold, White & Durkee
                                                                                                                                                                                                                                "URRENT APPLICATION DATA:
APPLICATION NUMBER: US/29/469.522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels:
                                                                                                                                                                                             OPERATING SYSTEM: PC-DUS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: 7..2628
SEQUENCE DESCRIPTION: SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps:
                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09/026.459
                                                                                                                                                                         COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                         FILING DATE: 22-Dec-1999
CLASSIFICATION: cToknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
                                                                                                                                                       MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/BOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGIE: 3392 base pairs
                                                                                                                                                                                                                                                                                                                                                  FILING DAIE: <UNKNOWD>
ATTORNEY/AGENT INFOFMATION>
                                                                                                                                                                                                                                                                                                                                                                                       NAME: Hibler, David W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 512/474-7577
                                      STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 30: SEQUENCE CHARACTERISTICS:
CHRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                  PRICK APPLICATION DATA:
                                                                                                                                  * MPUTER READABLE FORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.00%
100.00%
97.51%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4499.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COPOLOGY: linear
                                                                                                              77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
                                                         CITY: Houston
                                                                                                 COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       I EL EPHONE:
                                                                             STALE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US - (19 - 469 - 522 - 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          werry Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
```

```
1210 GTAATGGAATCCATGCTTAAATCAGAAGAAGGAGGATTATCCATTCAAAATTTTAGGAAA 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1270 CTTCTGAATGACAACATTTTCATATGTCTTTATTGGCGTGCGGCCTTGAAGTTGTAATG 1329
363 ProSerGluAsmLeuileSerTyrPheAsnAsmCysThrValAsmFroLysdluSerile 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           423 ValMorGluSerMerlentysSorGluSluArqLouSerTleStaAcofbesertys 442 ([[[[[[[[[[[[[[[]]]]]]]]]]]]])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           463 AlaThrTyrSerArqSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhePro 482
                                                                                                                       163 IleThrPheLeuLeuAlaLysGlyGluValLeuGlnMetGluAspAspLeuValIleSer 182
                                                                                                                                                                             430 ATGACATTTTATTAGCTAAAGGGAAGIATTACAAATGGAAGATGAIGTGGIGAIIIGA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   223 GlyGlnAssArgSerAlaArgIleAlaLysGlnLeaGluAsnAspThrArgIleIleGlu 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 790 AATCTTTCTAAACGATACGAAGAATTTAICTTAAAAATAAAGAICTAGAIGCAAGAIIA 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40% GladlyGysValGluIleGlySerGlnArgTyrLysLeuGlyValArgLeuTyrTyrAra 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          443 LeuleuAspAspallePheHisMetSerLeuleuAlaCysAlaLeuCluValValWet 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          483 TrplleLeuAssValleuAsnLeuLysAlaPheAspPheTyrLysVallleGluserPh.e 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  503 HelysAlaCluGlyAsnLeuThrArgCluMetHelysHisLeuGluArqCysGlUHis 522
                                                                                                                                                                                                                                   183 PheSlnLeuMetLeuCysValLeuAspTyrFheileLysLeuSerProFroMetLeuLeu
                                                                                                                                                                                                                                                                                                                                                                               243 ValLeuCysLysGluHisGluCysAsnIleAspGluValLysAsnValTyrTheLysAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     203 tysClubroTyrtysThrAlaVallleProffeAshClyScrProArgThrProArgarg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     610 GOTOAGAACAGGAGTGCACGGATAGCAAAACTAGAAAATGATACAAGAATTATTATTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       670 GITCICIGINAAGAACATGAATGIAATATAGATGAGGIGAAAAATGITTATTTCAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             263 PhelleProPheMetAsnSerLeuSlyLeaValThrSerAsnOlyLeaProClaValGla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   730 TITATACCTITIAIGAATICICIIGGACIIGIAACAICIAAIGGACTICCAGAGGIIGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           283 AsaLeaSerLysArgTyroluGlaileTyrLeuLysAsaLysAspLeuAspAlaArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          303 PheLeuAspHisAspLysThrLeuGlaThrAspSerIleAspSerPheGluThrGlmArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  323 ThrProArgLysScrAsnLeuAspCluCluValAsnValleProProProHisthrProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              343 ArqIhrValMetAshIhrIleGluGluLeuMetMetIleLeuAshSetAlaSetAopoln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        910 ACACCACACAAAAAGTAACCTTGATGAAGAGGGAATGIAALICCTCCACACACTCCAGTT
                                                                                                                                                  £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
```

Tue Jan 21 10:02:40 2003

883 MetAsnAspSerMetAspThrSerAsuLysGludluLys 895

```
Pos ProdeudrotheProdhydtydaatleTyrTheSerProdeudyaSerFroTyrDystae 782
TELETELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTE
1450 ATTACHTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HELLER HELLER FELLER HELLER HE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1750 TTCCAGACCAGAAAGCATIGAAATCTACCTCTTTCACTGTTTTATAAAAAGTGTAT 1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24 PERCENTIFICATION OF THE PROPERTY OF THE PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1930 AGAGACAGGATTTGGACGAAATTATGATGTGTTCCATGTATGGCATATGCAAAGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2290 TCAGAAGGTCTGOCAACACCAACAAAAATGACTCGAAGATCAAGAATCTTAGTAAATT 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 743 ProprofibitiouserProffeDroHistleProArgSerProfyrlySPheProSerSer 762
                                                                                                                                                                                                                                                                                                                                                                     524 ArglioMetGlusorLeuAlaTrpLouserAspserProLeuPheAspLeuileLysGln 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54.1. SertlysAspardCloGlyPrelbrAspHisterGluSerAlaCysPrelenAsnLeuPro 552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         583 LysGlySerThrThrArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAla 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       but the Cluthrethity strotologicy Serific Sericus erroute fyrtystys Valtyr 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           623 ArglenAlalytLeuArglenAsufbrienCysGluArglenIeuSerGluHisProGlu 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64 tendluffisHetteTteTteTeTPficeuPheGlnffisThrLeuGlnAsuGlufyrGluLeuMet 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              703 GluslufhrFheLgsArqValLeuIleLgsGluSluGluTyrAspSerIleIleValFhe 722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         724 TyrAsnSerValPheMetClnArgLeuLysthrAsnIleLeuClnTyrAlaSerThrArg 742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                783 SerdindlyLouProfhrProthtlySMetThrProArgScrArqTlebeuValSerTle 802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     803 GlydluSer Phedlythi Serdini yephedini yettleAsndinMetValeysAsnSer 1822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       843 ArgPheAspileGluGlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSer 862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               863 LyschedladiadasladiadiamenthrserthraffhratqmetGlalysClalys 882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           563 LeuGlinAshAshHisThrAlaAlaAspMetTyrLeuSerProValArdSerProLystys 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \frac{3}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
```

```
2 GInAspSerGlyProGluAspLeuProLeuValArqLeuGluPheGluchnihrelluGlu 21
                                                                                                                                                                                       Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
2590 ATGAATGATAGCATGGATACCTCAAACAAGAAAGAGAAA 2628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-026 459A:29 (1-895) x US-09-469-522-40 (1-3461)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER, US, 09, 369, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               inde (s:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: PC: DOS/MS-LOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ECCATION: 7..2697
SEQUENCE DESCRIPTION: SEC ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 22-Dec-1999
CLASSIFICATION: ~Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                               Sequence 40, Application US/0946952z
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: 512/418-3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGIH: 3461 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY / AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Hibler, David W. REGISTRATION NUMBER: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                           NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                               APPLICANT: Xu, Hong-Ji
                                                                                                                                                                     Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4417.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96.03.88
96.03.88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95.748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                         77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME, 'KEY: CDS
                                                                                                                                                                                                                                                                                                                                                             CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                 STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
Ouery Match:
                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                           US-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
```

				<u> </u>													<u>-</u>
42 hpt.outhrTrpdlutysValSerSerValAspClyValLcuClyGlyTrrlleGlutys 61 11111	<pre>(98)ys3laLeaTrp3ly11e2ys11e2helleAlaAlaValAspleaAspGluMetSor 8                                      </pre>	hrGluLeuGluLysAsnIleGluIle 	[3-2] cutysclutteAspthrSerThrLysValAspAsnAlaMetSerArgLeuLeuLysLys 121 [1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	1.22. tyrAspVallcopheAlatcophoSertysLeuGluArgThrCysGlulculleTyrLeu 141 	142 ThrothproserSerSerTleSerThrothulleasnSerAlaLeuValLeuLysValSer 161 	<pre>16.2 IPPILeThrPhoLeuLeuAlaLysOlyOluValLeuGInMetGIuAspaspLeuValLle 181 11                                    </pre>	142 Set Phedini.euMetieuCysVali.euAspiyrPhelleiysi.euSetProbroMeti.eu 201 1111 - 111111111111111111111111111111	2012 Tentys diu Protyrtygthralavalli eProfieas schyserproargthrearg (22)	222 AFGGFGFGASNAFGSCFAFARFGFGAFAGSGFNIGUGLUASNASPTRFAFGFLGFFG 241 - FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	24z JUVATLOUCYSLYSCIUHISCHUCYSASHTLOASPGIUVATLYSASHVATTYTTÜG 261 11111111111111111111111111111111111	.vs. AsribbettappropheMetAsriSertevGlyLecValThrSerAsriGlyLeubroGluVal 281 114441111111111111111111111111111111	282 STUASHLOUSCHLYSARGTYRGTUGTUTTETYTLOULYSASHLYSASPLOUASPATARG 301 118111111111111111111111111111111111	462 Leutherauspitisaspisythreadinthi aspseritieaspserthedin 321 1114-1111 HHIIHHIIHHIIHHIIHHIIHHIIHHIIHHIIHHI	422 ArgibeproArgiysserAshiouAspGludluValAshValleProProBisThepro 341 ++++++++++++++++++++++++++++++++++++	44. Valardhiyalmetashihilledinginleumetmetillillillillillillillillillillillillill	362 CINPROSCECTUASBIACUTESCETTYPHCASNASNCYSTHEVATASNPEOLYSCTUSCE 381 	482 IIALAHASARGVALUSAAGFILANIYYYELLEPBELYSSIMLYSPHEALALYSALAVAL 401 1717-1717-1717-1717-1717-1717-1717-17
형 급	3 8	\$ B	\$ £	5 3	\$ ±	多含	\$ £	5 £	5 E	5 3	ÿ ∄	与電	3 É	\$ 42 5	5 3	5 E	s ē

.2559

LOCAL LON:

```
HITHITH BILLIHITH HITHITH HITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELLITELLE HELLITELLE HELLE HE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25.46 CTANGCLITGATALLIGAAGIALGAGGAGGAGGAGGAGTAAAGATGTGGGAGGAGAG 2595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     822 SertAspArqValleettgSArqSerAlaGluGlySerAshProProtySProtectlystys 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    842 LeuArqFdeAspileGluGlySerAspGluAlaAspGlySerLysHisLeuProGlyGlu 861
                                                                                                                                                                                                                               782 HeserGluGlyLeuProThrProThrLysMetThrProArgSerArgHeLeuValser 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   862 SertySPheGlnGlnLySLeuAlaGluMetThrSerThrArqHetGlnLySGln 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TILLE OF INVENTION: MODIFIED RELINOHLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2656 AAAAIGAATGATATTITTITTITTITTITTTTT 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  882 LysMetAsnAspSerMetAsp1hrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/INCRES: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: THM PC COMPATIBLE OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRALION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICALION: - Unknown-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILLING DATE: 22 Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM LYPE: Ploppy disk
COMPUIEK: IBM PC compatik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGIH: 3424 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TRUE INS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  512/418:3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: - Unknown - AIFORNEY/AGENT INFORMATION -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREETL P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMALLON FOR SEG ID NOT 32:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77210 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAMEZKEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US 09 469 522 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Section 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PESULT B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
```

```
106 ASPIRISETINILYSVAIASPASOAJAMETSERATALAALCULYSELYSTYTASPVAILAU 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        126 PheAlaLeuPheSerLysTeuGluArgThr?ysChileuTfrithttill 145 [H11] [
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  186 MetLeuCysValleuAspTyrPtelleLysLeuSerProProMetLeuLeuLysClubro 205
HTELLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILLITHTHILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       610 AAAGAACATGAATGIAATATAGATGAGGTGAAAAATGTTIATTTCAAAAATTTTATACCT 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  286 LysArqTyrGluGluIleTyrLeuLysAsnLysAspLeuAspAlaArqLeuPheLeuAsp 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           730 AAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTGGAT 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10 TGGGGAATCTGTATCTTTATGCACAGTGACCTAGATGAGATGTCCTTTATTACT 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                86 GluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeuLysGluIle 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        190 GATACCAGIACCAAAASIIGATAATGCIAIGICAAGAATGIIGAAGAAGIATGIATTG 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                250 TITGGACTCTTCAGCAAATGGAAAAGGACATGTGAAACTTATATATTTGACACAACCAGC 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               146 SerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpHeThrPhe 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                166 LeuLeuAlaLysGlyGluValLeuGlnMetGluAspAspLeuVallleSerPhetHnLeu 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   370 ITATIAGCIAAABGGGAAGIAIIACAAAIGGAABAIGIAATCIGGIGATITCATITCATITCAGIIA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               430 AEGCIAIGECCTIGACTAITTATEAAACTCICCATGTTGTTGAAGAACAA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   206 TyrLysThrAlaVallleProlleAsnGlySerProArgThrProArgArgAlyGluAsn 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           490 TATAAAACAGCIGTFATACCCATTAATGCTFCGAACACCCGAGGCGACGAAAC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    226 ArqSerAlaArqIleAlaLysGlnLeuGlnAsnAspThrArqIleIleGluValLeur'ys 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   550 AGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGT 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           246 lysCluHisCluCysAsnileAspCluVallysAsnVallyrPhetysAsnPhellePro 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               306 HisAspLysThrLeuGluThrAspSerlleAspSerPheGluThrGluArqfhrPoArq 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       326 LysserAsnLeuAspGluGluValAsnVallleProProHisThrProValArqThrVal 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46 GluLysValerrserValAspSlyValLerGlySlyTyrllerlhutgrtystlytheu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66 TrpGlylleCysilePheileAlaAlaValAspLeuAspGluMetSerPheilmPheilm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09:026-459A-29 (1-895) x 00 09 469 522 32 (1 3023)
                                                                                                                                                                                                                                                               Conservative:
                                                                                                                                                                                                                                                                                                             Mismatches:
                                                                                                                                                                                                                     Matches:
                                                                                                                                                                                                                                                                                                                                                       Indels:
                                                                                                                                                                                Length:
SEQUENCE DESCRIPTION: SEQ ID NO.
                                                                                                                                                                                                                 4367.00
100.00%
                                                                                                                                                                                                                                                                                                                                                   94.658
                                                                                                                                                                                                                                                                                                             Best Local Similarity:
                                                                                                                                                                                                                                                               Percent Similarity:
                                                                                                                             Aliqument Scores:
                                     US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                   Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ণুত্র
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

8 물	446 910	16. Metasuthilledingloleemetmettieleuasoseralaseraspoloprosergiu 	365 969
6 E		Ashle-ulleSerfyrPheAshAshCysThrValAshProLysGluSerfleLeuLysArg	385 1029
5 3	13.16	VallysaspiledlyfyfilethelysClufysPhcalafysalaValCfyClnClyCys 	405
항 물	4:4	Validhullediy:SerdinArqTyrLysLedovOlyValArqLeuTyrTyrArqValMetGlu 	425
5 B	426	SerMetLetLysSerGluGluGluArqLetSerIleGlnAsnPheSerLysLetLetAsn	445 1209
학 를	446 1210	AspasmilePhoHisMetSerLeuleualaCysalaLeuGluValValMetAlaThrTyr 	465 1269
9 £	466	SerArdSerThrSerGluAsnLeuAspSerGlyThrAspLeuSerPheProTrpIleLeu 	485 1329
ģ ∄	13.45	AsnValledAsnLevLysAlaPheAspPheTyrLysValIleGluSerPheIleLysAla	505
ž £	985 1398	<pre>JUSTYASRICUTPTATGGLUMCTILGLySHiSLGUGLUARGCySGLUHiSARGILGMCt FILL FILL FILL FILL FILL FILL FILL FILL</pre>	525 1449
\$ £	526 1450	GluserLeudlafrpleuserAspserProLeuPheAspLeufleLysGluserLysAsp 	545 1509
8 1	546 2510	ArgdludlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuFroLeuGluAsn 	565 1764
§ 3	566 1977	ASHHIS DIYA LAALAASPMCHTYFLCUSCPPTOVALATGSCPFTOLYSLYSLYSCLYSCFT   1   1   1   1   1   1   1   1   1	
§ £	386	ThithirarqValasiSerthiralaasiAlaGluthirGlaalaThiseralaPheGluthir FELETETETETETETETETETETETETETETETETETETE	
5 £	6.9.7 6.9.7	SINDYSPICED REPORTED FOR LOSER LEAPENTY, LYSERSYALTYRANGERAND CHILLIEF FOR THE FORMAN STATES AND TOTAL TO ACT TO A CANADA AND A CONTRACT TO A CANADA AND AND AND AND AND AND AND AND AN	
\$ d	626	Pyricuargicuashiphicucyschiargiculcuserchuhisprodhulcuchuhis 	645 180
\$ B	646 910	LlefletrpThrLeuphedhniisThrLeughnAsnGlufyrGluLeaMetArgAspArg 	665 1 <u>869</u>
\$ \$	565 1870	HISTORARPOTOTIONALMALOVSSACMATTYFOLYTLACYSUSTSVALLYSASTIOARF	685 1929
5 3	68.5	(e013)SPECIFS (TCHCV3 (ThrA) 3 321/38ASPECBFOH SAI3VA (STELLITH HILL HILL HILL HILL HILL HILL HILL	705 1989

```
2110 TTGTCACCATACCTCACATTCCTCAAAGCCTTACAAGTTTCCLAGTACTTACCCTTACAC
                                                                                                                                                                                                                                                                                                                                                    2289
                                                                                                                                                                                                                                                                                                                                                                                                                                 5 7 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2410 ATTGAAGGATCAGATGAAGCAGAAGTAAACAIGTOCCAGGAGAGTCCAAAITTCAG 2469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2350 chcaaaagaagiggigaaggaagcaaggciggraagcagigaaaaagiaggiiigai 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             746 LeuSerProlleProHistieProArySerProTyrLysPheProSerSerProLeuAry 765
                                                                                                                                                                                                                                                                                                               8
22
                                                                                                                                                                                                                                                                                                                                                                                           65
33
30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                826 LeulysArqSerAlaGluGlySerAsnProFroLysProLeulysLygLygLeulyarpheAsp 845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             866 GlnLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAsp 885
                                                                         726 ValPheMetGlnArgLeuLysThrAsnlleLeuGlnTyrAlaSerThrArgProProTh
                                                                                                                                                                                                                                                                                                                                      2050 GTCTTCATGCAGAGAGCAAAACAAATATTTGCAGTATGCTTCCAGAGGGGGCCCAA
                                                                                                                                                                                                                              766 IleProGlydlyAsmileTyrileSerProLeuLydSerProTyrLySileSerCludly
706 PheLysArqValLeulleLysGluGluGluTyrAspSerIleIleValPheTyrAsnSer
                                                                                                                                                                                                                                                                                                           786 LeuProThrDroThrLysMetThrProArgSerArgIleLeuValSerIleGlyGluSer
                                                                                                                                                                                                                                                      FITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patentin Release #1.8, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2530 AGCATGGATACCTCAAACAAGGAAGAAAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/026,459
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    886 SerMetAspThrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Au, Shi-Xue
Benedict, William F.
7hou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 22-Dec-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 34, Application US/09469522
Fairer No. US/20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DAFA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT, Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
XIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOPTWARD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-469-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 9
                                                                                                                QQ
                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                           ογ
                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                           4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         â
                                                                           07
                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                         ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
Set1.9844419rG1ut1e1971.cu1.9848rd.9848pl.cu48pAla47qf.cuPhet.cu 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  85 ThrGluteuGlutysAsn.LeGiuIIeSerValHistrysPhePheAsnLeuteutysGlu 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           THEFTER FILE FOR EACH OF THE FOR THE FIRE FOR THE FOR 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       430 CCATATAAAACAGCTGTTATAACCATTAATGGTTCACCTCGAACACCCAGGCGAGGTCAG 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            265 ProPheMet Ash Sert. Cud1yt. cuValThr Sert Ash G1yt. cuProxluValG1uAsh Leu 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        610 CCTITIAIGAATICICITGGACITGTAACAICIAATGGACITGCAGAGGITGAAAAICIT 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70 ACTGAGCTACAGAAAAAAAAAATCAGTGTGCATAAATTCTTTAACTACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               105 HeAspThrSerThrLysValAspAshAlaMetSerArgLeuLouLysLysTyrAspVal 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    125 LeupheAlaLeuPheSerf.ysLeuGlaArqThrCysGlaLeuIleTyrLeuThrGlnPro 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   145 SerSersleSerThrGluffeAsnSerAlaLeuValleuLysValSerTrpHeFhr 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    410 HILLIALFAGYTAAAGGGGAAGTATTACAAATGGAAGATGATCTGGFGATTFGAGTFTCAG 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      185 LeuMetteudysValleuAspTyrPhelleLysLeuSerProProMetteuLeuLysGlu 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               205 ProtyrtysThrAlaValileProffGSnGfySerProArgThrProArgArgGtyGln 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    225 ASBATGSCTALAATGITEALALYSGIBLEUGLUASBASPFBTATGITELLEGIBVALLEU 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           490 AACAOOACIGOACOGATAGCAAACAAGAAAATGATACAAAATTALIGAAGTTCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 CTGTGGGAATCTGTATCTTATTGCAGCCTAGACCTAGAGATCTCGTTCACTTTT 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65 LeuTrpGlyIleCysllePhelleAlaAlaValAspLeuAspGluMetSerPheThrPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US OF ULE 459A 29 (1 895) x US O9 469 522 34 (1 3266)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative.
Mismatches:
                                  REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMINICATION INVENANTION:
TELEPHONE: 512/418 3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EOTATION: 7..2502
SEQUENCE DESCRIPTION: SEQ ID NO. 44.
RECISIRALION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                  LENGIH: 3266 base pairs
                                                                                                                                                                                                                           INFORMALION FOR SEQ ID NOT 34:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                        TYPE: tuteleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           190.90%
100.00%
92.61%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4274.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09 469 522 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ٤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
```

```
1090 GAATCCATGCITAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGCAAAACTTCTG 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1270 CIGAATGIGGITAATITAAAAGGCCITIGATITITACAAAGIGATGGAAAUTTITATCAAA 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1330 GCAGAAGCCAACTTGACAAGAGAAAATGATAAAAACATTTAGAACGATGT-GAACATGGAATC 1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1630 ACCCAGAAGCCATTGAAATCTACCTCTTTCACTGTTTTATAAAAAAGTGTATCGGCTA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1570 ICAACTACGCCIGLAAATTCTACTGCAAALGCAGAGAAGAAAGGAACTCAGCTLCGAG 1629
                                                                                                                                                                                                                                                                                                                   505 AlaGluGlyAsnicuThrArgGluMetllelysHislauGluAreCysTuHisArglie 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     425 GluSerMetLeuLysSerGluGluGluArgLeuSerIleGluAsnPheserLysLeuLeu 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       445 AsnAspAsnIlePheHisMetSerLeuLeuLauAlaCysAlaLauGluValValMetAlaThr 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       465 TyrserArgserThrserGinAsnLeuAspserGlyThrAspLeuserPheProTrpIle 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       485 LeuAsnValLeuAsnLeuLysAlaPheAspPheTyrLysVallloGluScyPhcIleLys 504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        545 AspArqGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGln 564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      585 SerThrThrArgValAsnSerThrAlaAsnAlaGluThrGluAlaThrSerAlaPheGlu 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      605 ThrGlmLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysVallyrArqLeu 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      625 AlaTyricuArgicuAsnThricuCysGluArgicuIserGluHisProGluLcuGlu 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        645 HisilelleTrpThrLeuPheGlnHisThrLeuGlnAsuGlnTyrGlnLeuMetArdAsp 664
                                                                                                                                                                                                                                                  850 CHTATGAACACTATCCAACAAFTAATGATTTTAAATTFCAGGAAGTGALGAACCFFCA 909
                                           305 AspitisAspLysThrLeuGlnThrAspSerIleAspSerPheGluThrGluArqThrPto 424
                                                                                7.40 GATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAAGACAA
670 TCTAAACGAFACGAAGAAATTTAFCITAAAAATAAAGAFCTAGAAFGAGAFGAGAFTGFFFF 729
                                                                                                                                                                790 CGANANATANCCITGALGANGAGGTGANTGTANTTCCTCCNCACACTCCACACT
                                                                                                                                                                                                         445 ValMetAsuThrileGluGluLeuMetMetIleLeuAsnSerAluSerAspGluProSer
                                                                                                                                                                                                                                                                                         365 GluAsmieuileSerTyrPheAsmAsmCysThrValAsmProLysGluSerTleLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     525 MetGluserLeuAlaTrpLeuSerAspSerProLeuPheAspLeufleLysfluSerLys
                                                                                                                           325 ArqtysSerAsnLeuAspGluGluValAsnVallleProProBisthrProValArqFhr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ξ
                                                                                5
                                                                                                                                                                a
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                              급
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                           ŝ
                                                                                                                           ें
                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \dot{\varsigma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
```

```
2230 ICALICGGGACTFCIGAGAAGTIOCADAAAATQAGATGGTAATGAGAAGAGAAGGGAGGT 2289°
                                                                                                                                                                                                                                                                                                    190 ICSGTCTICALSCAGASACIGAAAACAAATTITGCAGIACGACICCACCAGGCCCCCI 2049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2290 GTGCTCAAAAGAAGTGCTGAAGGAAGCAACCCTGCTAAACCACTGAAAAAACTACCCTTT 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2350 GAIATTGAAGGATCAGAGAGGAAGGAAGGAAAQTAAAAAGATCTCCAGAGAGAGAGCGAAATTT 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1736. AGATI MAARGIGTII IGATCAAAGAAGAGGAGTATGATTGTATTATAGTATTCTATAAC 1989
                                                                                                                                                                                                                                                          7.1.4
                                                                                                                                                                   204 ThrPbotysArqVoltoutleLysGlvGlvGlvTyzAspSerileIleValPhcTyrAsn 724
                                                                                                                                                                                                                                                                                                                                                                                                                           765 ArgileProGlyGlyAssileTyrileSerProLedLysSerProTyrLysileSerGlu 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #25. ValLeuLysAraSerAlaGluGlySerAsnProProLysFroLeuLysLysEeuAlqPhe 844
                                                                                    585 AsptoutysPhetysTlelleValThrAlaTyrLysAsptouProHisAlaValGlnGlu 704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 445 AspilogluClySerAspGluAlaAspGlySerLysHisLouProClyGluSerLysPhe 864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                865 GlnGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsn 884
                                                                                                                                                                                                                                                       TILLE OF INVENTION, MODIFIED RETINORLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SUFFWARE: Patentin Poloage #1.0, Vorsion #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2470 GATAGGATGGATACCTCAAACAAGGAAGAGAAA 2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  885 AspSerMetAspThrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ALGRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM-
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 46, Application US/09469522
Patent No. US.0020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SECUPINFES 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38 09-469-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 1:
                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
142 ThrGlnProSerSerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSer 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerPheSInterMetterCysVallerAspTyrPhelletysLeuSerProProMetteu 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82 PheThrPheThrGluLeuGluLysAsuIleGluileSerValHibLysPhePheAbuLc, 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               469 CIAAAAAAAIIGAIACCAAAGIIGAAAAGIIGAIAIGAICAAGAACIGAIGAAAAAAGAAG 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            469 TATGAIGIAITGIITIGCACICIICAGCAAAIIGGAAAGGACAIGIGAACIIATAIAIIIG 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 162 Trp1leThrPheLouLouAlaLysGlyGluValLouGlnMetGluAspAspLeuVaille 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62 hystyschalouTrpClylleCysllchhalleAlaAlaValAspLeuAspCluMetSer 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22 ProAspPheThrAlaLeuCysGlsLysLeuLysIleFroAspHisValArqGluArqAla 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 CinAspScrClyProGluAspLcuProLcuValArgLcuCluPhcCluCluThrCluClu 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       122 TyrAspValledPheAlaLeufheSerLysLeuGluArgThrCysGluLeuflelyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-026-459A-29 (1-895) x US-09-469-522-46 (1-3377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  indels:
                                                                                                                                                                                                                                                                                                                                                                                                                 NAME, KEY. CDS
LOCATION: 7..2613
SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                                                                         APPLICATION NUMBER: 09/026,459
                                                                                                                                                                      REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                      Спиковир
              AFF CATTON WOMES 02,75
FILING DATE: 22-Dec-1999
CLASSIFICATION: CORRESED
                                                                                                                                                                                                                                  TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                             LENGTH: 3377 base pairs
                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                              FILLING DATE, SUBKROWES
                                                                                                                                                                                                                                                 512/474-7577
                                                                                                                                                                                                                                                                                                                                      TYPE, nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
CURRENT APPLICATION DATA:
                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4266.50
                                                                                                                                                                                                                                                                                                                                                                         FOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rereent Similarity: 93.29%
Hest Local Similarity: 93.18%
Query Match: 92.17%
                                                                                                                                                                                                                                                       TELEFAX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aliqnment Scores:
                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-469-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>..</u>.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
```

ą.	1,4	646	æ
<u> </u>	707		1
٤	044		_
<u>.</u>	7 7 7	2 AreniyolinashargseralaarqilealanysGinleeGluashaspihrarqiletic 241	
	7.	z – Cawari Chukan Andali ar Goalan Cawan Zakela Gazaa (Aliacaakan Tali - 65).	. <b>-</b> -
ي ج	542	z oluvalizorystyschutischucysasnileaspohuvaliysasnvaliyrPhelys 261 TELLETTILLIHITTILLIHITTILLI z daatiictetolaaadaacaldaatelaataateacagaaaatettaritatusaa 711	
<u>ب</u> ۾	262	2. ASUPHETTEPPOPHEMETASUSErLEUGTYLEUVATTHESERASUGTYLEUPFOGLQVAT 281. 	
15	28.2	2 CluAsniceSerlysArglyrCluCluClyf.culysAsniysAspiculAsplafrg 30]	_
÷	112	Z GAAATCTTCTAAACGATAGGAAGAAATTATCTTAAAAATAAAGATCTAGATGCAAGA 831	1
5 £	402	2. tembelemasphisasptysthrikudinihraspserificaspserphediuthrdin 321 	
چ ج	42.2	422 ArqfurFroArqfuySerAsnLeuAspGluGluValAsnVallleProProHisThrPro 341 	
<u> </u>	14.2	ValArqfbrValMetAsnibrileGlnGlnLeuMetMetHei.euAsnSerAlaSerAsp	_
ā	755	GTTAGGACTGTTALGAMCALGCAACAALTAATGATGTTTTAAATTCAGCAAGTGAT	11
्र इन्ह	1012	GIRPLOSCEGLUASRILOUTIOSCETYEPROASROPSTREVATASROPEOLYSGLUSCE THE FILLE HELLETHER HELLETHER HELLETHER HELLETHER HELLETHER HELLETHER THE CAACAGIGAA AGAAAAAAAAAGI	1 7 1
<u> </u>	48.2 10.7.2		1
ş	402	01   polectip/ysvalctor/Lectipscrottnard/pritystcuctyvalardicutyrtyr 	_
Ę	11.	OGACAGGETGTGTGGAAATTGGATCACAGAAAACTTGGAGTFCGCTTGTATTAC	91
동골	422	ArqvalMetðluserMethedlysSerdluðluðluðluhrqfæuserlieginAsnPheSer [1][1][1][1][1][1][1][1][1][1][1][1][1][	1 51
g g	442	LystaultauksnAspAsnTlePheBisMetSerLeufauAlacysAlatauGluValValVal 	1 1
15 4	46.2	Mot Abatha 171 Set ArdSet thr Set ChashleadspSetGrythraspLeuSet Phe Hillittill	
<u>.</u>	48.	Profit principles and several programmer profit pro	·
ž	1472	CCATGOALLY IGAILE HATTI AAAAAGGELTI GATTITTT ACAAAGTGAAAAGT	3.1
는 골	5.02	Pheli Pelybalaciuglyabbeleuthrakgolumet ilelysiisleugluargoysgiu 	1 9 9 1
7.	622	HisArq LeMet (1uSer LeuAlafrpteuSer AspSer ProtecuPheAspl.eu Het.ys	
ų.	1492	CATOGATICATEGETTE CATGAGATICACITATATAAA	51
7.	245	2 GINSCHT/SASPATAGNAGLYPTOThTASPHISLANGINSCTALACYSPTOLOUASNIAOU 561	

```
| HELLELLE | HELLELLE | HELLELLE | HELLE | HEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HILLITELLE | HIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2392 AGGGACGETGCTGCTGAAAAGAAGTGCTGAAGGAAGCAAGCTGCTGAAAAAA 2451
                                                                                                                                                                                                                                                                                                               1612 CCTCTCCAGAATAATCACACTGCAGCAGATATGTATCTTTTCTCTCTAAGATCTCCAAAG 1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1912 ATGAGAGACAGCATTTGGACCAAATTATGATGTGTTGGATGTATGGTATATGCAAAGTG 1971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2452 CTACCCTTTGATATTCAAGGATCAGATGAAGTAGGAAGTAAATATTTTTGAGGAGT 2511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2512 TCCAAATTTCAGCAGAAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAGCAG 2571
1552 CAATCAAAGGACCGAJAAGGACCAAATTGATGAGTTGAATGTGTTGTTGTTAATGTT T61)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           562 ProbeughaNanAsnBisThrAlaAlaAspMetTyrLeuSerProValAt-3SerProJys 581 [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [11] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [11] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [11] [111] [111] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] [11] 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            602 AlaPheGlnThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysVal 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           622 TyrArqLeuAlaTyrLeuArqLeuAsnThrLeuCysGhuArqLeuberGluHisPro 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   662 MetArdAspArdHisLeuAspGlnIleMetMetCysSetMetTyrGlyIleCysLysVal 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           702 ValGinGlufhrPhetysArqValLeutletysGluGluGlufyrAspsertletteVal 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           722 PheTyrAsaSerValPheMetClnArqLeuLysThrAsnileLeuGlhf,tAluSerThr 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           802 IleGlyGluSerPheGlyThrSerGluLycPheGlnLycfleAsnclnMetVulcycAsn H21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   822 SerAspArgVall.cul.ysAtqSerAlaGluGlySerAsmProProlysProteutystys 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   862 SerLysPheGlnGlnLysLeuAlaGluMetThrSerThrArqThrArqMetGlnLysGln 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   682 LysAsnileAspLeuLysPhoLysIleIleValThrAlaTyrLysAspLeuFroHisAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   642 GluteuGluHisllellefrpThrtæuPheGluHisThrtæuGlnAsnefuTyreHuleu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            582 tystysctyserthrihratqValAsuSerthrAlaAsnAlaCluthrGthAlathrSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           782 HeSerGluSlyLeuProThrProThrLysMetThrFrsArqSetArqfleteaValSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      882 LysMetAsnAspSerMetAspThrSerAshLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
---
                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>1</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \circ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
:
```

: Sequence 48, Application US/09469522

```
164 PCTICALITTACTICALTATICAGAATTAAAGATACCAGATICATICATGATGAGAGAGTT 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22 ProAspPheThrAlaLeuCysGlnLysLeuLysIleProAspHisValArqGluArqAla 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 SlnAspserGlyProGluAspleuProLeuValArgLeuGluPheGluGluThrGluGlu 21
                                                                                                                      TITLE OF INVENTION: MODIFIED RETINORLASTOMA THMOR SHPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IRM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Pc!oasc #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2' 459A 2+ (1 895) x US 09 469 522-48 (1-3383)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/209,7469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER 11TXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION: 7..2619
SEQUENCE DESCRIPTION: SEQ. 1D NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 09/026,459
FILING DATE: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                             Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hokenwn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 22-Dec-1999
CLASSIFICATION: Hekeswn:
                                                                                                                                                                                                                                                                                                                             MPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGIH: 3383 base pairs
                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY / ACTIVITY INPORMATION -
                                                                                                                                                                                                                            SIREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 48: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                  CHRRENI APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IYPE: nucleic acid
                                                                                                                                                               LS isabhailides an madWiN
                                      APPLICANT: XIL, Bond-Ji
                                                            Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4259.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93.628
93.628
92.328
                                                                                                   Thou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P.P.D.CGY: Linear
                                                                                                                                                                                                                                                                                      CHUNIKY, USA
ZIP: 77210-4433
US20020151461A1
                                                                                                                                                                                                                                             Houston
                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                  STAIE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bost Todal Similarity:
goory Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME / KF : -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13 459 522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fred. No. :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
```

```
958 GITAGGACTGITATGAACACIAICCAACAAITAAIGATGATTTTAAAITCAGCAAGTGA1 1017
                                                                                                                                                                                                                                                                                                                                                                                                             382 IleLeuLysArqValLysAspIleGlyTyrIlePheLysGluLysPheAlaLysAlaVal 401
349 PECACETETACEGGCTACAGAAAACALAGAAALCAGEGECCALAAATECELEAAGELA 408
                                                                               102 leatysCluffcAspThrScrThrtysValAspAshAlaMctScrArgladaniysLys 121
                                                                                                   122 TyrAspValleufheAlaheufheSerbysheuCluArgfhrCysClubeullefyrLeu 141
                                                                                                                                                                                                                                               142 ThrGlnProSerSerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSer 161
                                                                                                                                                                                                                                                                                                                               162 TrpHeThrPheteuteuAlaTysGlyGluValleuGlmMetGluAspAspLeuVallle 181
                                                                                                                                                                                                                                                                                                                                                                        589 TGGATCACATTTTATTAGCTAAAAGTAATATTACAAATGGAAAGATGATGTGGTGGTTT 648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               202 LeadysolaProTyrEysThrAluVallieRtalleAndlySerFroArgThrFroArg 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               222 ArgGlyGtrAsnArgSerAlaArgIleAlaLysGleLeuGluAsnAspThrArgileIle 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            242 CluValLeuCysLysCluHisCluCysAsnIleAspCluValLysAsnValTyTiP.eLys 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     736 ------AATTCTCTTGGACTTGTAACATCTAATGGGCTTCCAGAGGTT 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            282 CluAshicuScriysArqTyrCluCluilcTyrLcuiysAsnLysAspLeuAspAlaArq 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          392 LouPheLeuAspHisAspLysThrLeaGInThrAspSer!LeAspSerPbeCluThrCLn 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   898 AGAAÇACCAÇGAAAAGTAAÇÇTTGATGAAGAGGTGAAHGTAATTI'GCTGCACACACTCCA 957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           442 LysLeuLeuAsnAspAs::IlePheHisMetSerLeuLeuAlaCysAlaLeuGluValVal 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       842 ValArgThrValMctAsnihrllcClnCinfcuMctMctileLcuAsnScrAlaScrAsp.
                                                                                                                                                                                                                                                                         7.35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          709 CICAAAGAACCAIATAAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          322 ArqThrFroArqLysSerAsnLeuAspGluGluValAsnValIleFroProHisThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        707
                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                        윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
```

Tue Jan 21 10:02:40 2003

	541 1557 561 1617	581 1677 601 1737 621 1797	641 1857 661 1917 681	701 - 2037 721 2097 741 2157 741 761	2217 781 2277 2277 801 2337
	THATTHE HARD CONTROLL OF THE THE TERM OF T	Proteoral in Asin Asin Asin Andria Aspinet Tyrteorser Proval Arg Ser Proteys HHTHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	TyrArabenalaTyrLenArqLenAsoThrLenCysGluAraLenLeuSerGluHisPro HITTHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	isAld IEVA IEVA IIII IAGE ELTE IIII	AGGCCCCTACH HITTER HITTER HITTER HITTER HITTER HITTER HITTER HITTER AGGCCCCTACACH HITTER HITTER AGGCCCCTACACH HITTER HITTER AGGCCCCTACACH HITTER HITT
1258 462 1318 482 1378 502 1438		562 1618 582 1678 602	622 1798 642 1858 662 1918	682 1978 702 2038 722 2098	

```
2518 TCCAAATITCAGCAGAAACTGGCAGAAATGACTTCTACTCGAAACGGAATGCAAAAGAAG 2577
862 SerlysPheGlnGlnLysLeuAlaGluMetThrSerlhrArqThrArqMetGlnLysGln 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODEFLED RETINABLASIOMA LUMOR SHIPKESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPULER: IMM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.40
CURRENT APPLICATION DATA:
AFFLICATION NUMBER: US/05/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: CUBKNOWN->
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                982 LysMctAsrAspSerMctAspIbtSerAschysOludLuiys B95
HTHTHTHTHTHTHTHTHTHTHTHTHTHTHT
2578 AAAATGATGGTGGATACCICAAACAAGAAGAAAA 2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
ADDRESSEE, Arbold, White & Dutkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: UIXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: 7..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09,026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                 09 469 522-38
Sequence 38, Application USZU9469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Xu, Hong Ji
Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4217.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  reent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -09-469-522-38
```

67-V697-96-404-	67-VI	u1 10 x (895)	) ) ;2-694-		
75 Val AsplæuAspG1 	AsplenaspG                            	uMetSerPP	eThrPheThrGluLouGlr 	leGlulleSer HIIIIIII TAGAAATCAGT	94 156
io h	HHISLYSPhePhe 	ASnLeuLe 	uLysGluIleAspThrSerThrLysV  }	alAspAsnAla 	7
	rSerArqLeuLeu 	Lystysty TITITII	rAspValleuPhcAlaleuPhcSert; 	yst.cuGluArg 	134
10 P	regschuleutte 	Fyrtheurb FILLILL FALLIGAG	rglnikroserserserileserihrd 	lullcAsnSer 	154 336
io r	aLeuValLeuLys   - - -	Valserfi 	pilethrPheLeuLeuAlaLysGlyG) 	luValLeuGln 	17 39
r r-	rSluAspAspLeuVa  - - - - - - - - - - -	41116S6   1111    GATTT	rPhoGInLouMetLouCysVallouAd 	splyrPhelle 	19 45
u: r-	SteaserProprome 	etLeute HHHH IGMGC	utysčiuprofyntysthralavali 1111111111111111111111 CAAGAACCATATAAACAGCTGTTA	lebrolleAsn                  PACCCATTAAT	5.1
	ySerProArqThrPr 	CAGGCC	901yGlbAsnArgSerAlaArg12eA 	latysGluteu 	23
un ro	uAsnAspIbrargild   J +	1116G] 	uVallouCystysCluHisCluCysAv 	sn:!caspGlu 	و ۲۰
10 1	Ilysasova  Fyrt  tage	SASAS               AAAAA	EPECTOPORCEASNSCHOOG [[]]][]][]]]]]]]]]]]]]]]]]]]]]]]]]]]	IyteevalThr 	27 69
75 SeptablityLeuproitte THILLITHIHHHH 97 TOTAALGGACTICCAGAG	rAsnatiyteuProati   - - - - - - - - - - - - - - - - - -	Val G 	uAndi ousorEysArgTyrGluGluI 1444-Hilliliiiiiiii AAATGITITTAAAGGATACGAAGAAA	leTyrLeuLys 	29
295 ASTLYSASDLOUASPALG	ntysAspteuAspAla 	Argl.c	OPbeleuasphisasplysThrleuG 	InThraspser 	31
: FicaspserPhedluThr 	cAspserPhedluThm  + 5  1  1  1  1    Adacacrrugaaag	GINAT	gthrProargLysSerasnleuaspG 	luGluValAsn 	33 87
55 ValileProProHisTh 		rProva 		InLeumetmet. 	35 93
U T	clebasnseralase   - - - - - - - - - -	raspel            GATC	ntroserchasmanteurfeserfyrb HIIIHHHHHHHHHHH Accticagaaarctgitteefatt	heAsnAsnCys 	37 99
(75 ThrvalasnProtysch) 	rValasnProLyscli ilililililil AGIGAATCCAAAAGA	Seril 	chculysargVallysaspiloGiyTr illillillillillillillillilli acroaaaaGaGrGAAGGATATAGGATA	yrilePheLys               ACAICTTIAAA	39 10
oys GlubysPhcAlabyralayalGlychnd Littiillillillillillillilli 55 GAGAATIIGCIAAAGCIGIGGGACAGG	uLysPbcAlaLycAl.  -  -	10167 	yolnolycysValolulleolyseroluAr HILLIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII ACAGGGIYGYGYGGAAIYGGAYGACAGCG	lnArqTyrLys 	41

```
2257 AGAFGAAGAATCITAGIATCAATIGGIGAATCAITGGGGACITCIGAGAGGICCAGAAA 2316
                                                                                                                                                                                                                                                                                                                                        24.47 AGTAAACATGTGGGAGAGAGTGGAAATTTGAGGAGAAACTGGGAGAAATGACTTGTACT 2496
                                                       795 ArqSerArqlleLeuValSerlleGlyGluSerPhcGlyThrSerGluLysPheGlnLys 814
                                                                                                                                      815 The AsustraMet Val CycAsuser AsyArgVal Leutys ArgSer Atastrolly Ser Asu 834
                                                                                                                                                                                                                                                                                                    855 SertysHistouProGlydluSertysPheGlnGlnLysLeuAlaGluMet1hrSerThr 874
                                                                                                                                                                                                                                                                                                                                                                                875 ArqThrArdMetGlnLysGlnLysMetAsnAspSerMetAspThrSerAsnLysGluGlu 894
                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                            Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/LOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Benedict, William F.
Zbou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 22-Dec:1999
CLASSIFICATION: * PORROWD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  512/418 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: **47 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     UMPRODE: 512/9.00
TELEPHÖNE: 512/474-7577
TOTAK: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: number acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: 42: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oPoloGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fatent No. USZ0020151451AI
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2557 AAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 368 SVI 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08 09 469 522 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 42,
                                                                                                                                                                          =
                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                   =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                S
```

```
161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    202 LeuLysdaproTyrLysTbrAlaValllefroll-AmadlyterFroAraThrFroAra 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  56.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82 PheThrPheThrGluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeu 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    102 LeuLysClufleAspibiSerThiLysValAspAshAlaMetSerArqLeuLysLys 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            122 TyrAspVallcuPhcAlaLcuPhcSerLysLeuSlüArqThrSysSlüLcuTlcTyrLeu 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            562 CGAGGTCAGAACAGGAGTGCACGGATAGCAAAACTAAGAAAATGATACAAGAATTAFF 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    682 AATTTTATACCTTTTATGAATTCTCTTGGACTTGTAACATGGAATGGAATTTCCAGAGGTT 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             282 CluAsnicuScriysArqiyrCluCluileTyricuLysAsniysAspizuAspAlaArq (0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     229 IGGTIAACTIGGGAGAAAGTITCAICTGTGGATATGGGAGTATTGGGAGGTTATATTCAAAAG 288
                                                                                                                                                                                                                                                                                                                                                                                                                                42 TrpLeuThrTrpClutysValSerSerValAspGlyValLeuGlyGlyTrtLeGIntys 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62 LystysGlut.euTrpGlylleCystlePhefleAlaAlaValAspt.euAspGluMefSer_81
                                                                                                                                                                                                                                                                        2 GluAspSerGlyProGluAspLeuProLeuValArgleuGluPhecluGluIhecluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       142 ThrGlnProSerSerSerIleSerThrGlufleAsnSerAlaLeuValLeuLysValSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              162 TrplleThrPheLeuLeuAlaLysGlyGluValLeuGluMetGluAspAspLeuVallle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 182 SerPheGInLeuMetLeuCysValleuAsplyrPhelleLysLeuSerProProMetLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                502 CHCAAAGAACCATATAAAACAGCHGTTATACHGATTAATGGTTHAACHHGAAHAGTTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 242 CluVallicaCystysCluHisCluCysAscllcAspCluVallysAstVallyrPhaligs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               262 AsaPhelleProPheMetAsaSerLeuSlyLeuValThrSerAsaslyLeuFraGluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-026-459A-29 (1-895) x US-09-469 522-42 (1 +347)
                                                                                                                                       Conservative:
Mismatches:
                                                                                                                    Matches:
                                                                                                                                                                          indels:
                                                                                                  Length:
                  SEQUENCE DESCRIPTION: SEQ ID NO: 42:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     342 -----
LOCATION: 7..2583
                                                                                                                4213.50
92.17%
92.17%
91.32%
                                                                                                                                                       Hest Local Similarity:
                                                                                                                                     Percent Similarity:
                                                                           Aliqument Scores:
                                      US-09-469-522-42
                                                                                                                                                                        Query Match:
                                                                                                  Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ៊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   j
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
```

2 19	341 921	361 981	381	1101	421	441	461	481 1341	501	521 1461	541 1521	551 1581	81		621 1761	641	
disaspiysihtieudinThraspSerileaspSerPhedluThrdin 3	micuaspCluGluValAsnVallicProProHisThrPro 3	orleginginteuMetMetileLeuAsnSerAlaSerAsp 3	Seriyi PheAstaShCysThrValashProfysGluSer 3 	Vallysaspilodlytyfilopholysolulysoboalalysalaval 4 FILLELLELLELLELLELLELLELLELLELLELLELLELLE	ValólulléglyverőlnárgfyrLeuglyvalárglesífyrfyr 4 	GluGluGluArgleuSerlleGlhAsnPheSer 4 	ppanilePheHisMetSerfeuleualaCysAlaLeuGluValVal 4 	rargSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhe 4		gGlumetllelysHisheudluargCysGlu 5 	USerAspSerProLeuPheAspLeulleLys 5	yProthtAspHisleuGluSerAlaCysProteuAshLeu 5 	pMctTyrLeuSerProValargSerProLys 5 	FTDFR]aAshA]aGUTBFG]nAJaTBFSeF 6 	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	The UCysG   UATGLEU   CONTROL   CO	
cuPhelouAsph 		lArgThrVa              AGGA: G	SlnProSerGl 	2 = 1 - CA		IVa I M	ysteuteu <b>As</b> HITTTITI AACTICIGAA	H - K	VITPI VIGGA	Phettelysal Hillitia Hilaicaaage	SArdIleMe 	nSertysAs 	oleudin <b>as</b> 	siysəlysə HILLILL AAAAĞĞITÇ	aPheGluTh  -	yr Argleou Ala Hillilili Aleggei Agee	euglulli FELFF FAGAACA
.: -1	4 - 4 7 7	N 4	-14 - 24	- 4 2	9-8	Ary Ary 2 Ort	2 - 4 2 - 4	$\tilde{\Sigma} = 4$	~ ~	宝田田	E=5	5 = t	4 = E	7 - K	2 – A	7 7	·4 · ~
₽ 🕏	3.2 86	\$ 7.7 2.7	\$ \$	38 104	<u> </u>	42	44	4 0 20	48 144	2 =	N &	< € €	ς <u>τ</u>	-cc -÷	D C	176	54 182
5 #	. S e e	5 E	یتہ ہے:	항물	ş <u>\$</u>	うる	ey De	5 3	5 8	Š 1	5 =	贫 貴	\$ E	9 B	きる	5 ±	S E

```
2001
                                                                                                                                                                                            2002 GTTCAGGAGACATTCAAACGTGTTTGATCAAAGAGAGGAGTATGATGATGATTATAGTA 2061
                                                                                                                                                                                                                                                                                                                                                                           2181
                                                                                                                                                                                                                                                                                          2062 ITCTATAACICGGICTICALGCAGAGIGAAAACAAAIAHITTGGAGIALGCILGCAGC 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2242 ATTTCHGANGSICISCEARCHACHACAAAAISACICCAAGAICAAGAAICTINGIAICA 2361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2302 ATTGGTGAATTGGGGAGTTGTGAGAAGTTGGAGAAAATAAATGGGATGGTATGTAAG 2361
                                          1882 ATGAGAGACAGGCATTIGGACCAAATTAIGAIGIGIICCAIGIAIGGCAIAIGGAAAGIG 1941
                                                                               2422 CIACHTITGAIAITGAAGGAICAGAIGAAGGAGAIGGAAGIAAACAICICCCAGGAGAG 2481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2482 TCCAAATTTCACCAGAAACTGGGAGAAATGACTTGTAGTGGAAGAGGAATGGAAAAAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      662 MctArgasparghisLouaspCin:TemotMotCysScrMetTyrG)yTTeOystysVar 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           802 lledlygluSerPhedlyThrSerGluLysPheGlnLysIleAsnGlmMetValCycAsn 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       962 SerlysPhoSlnSlnLysLouAlaSluMetThrSerThrArgThrArgMetSlnLysGln 881
                                                                                                                                                                                                                                                                                                                                                                                                           722 PheTyrAsmSerValPheMetGlmArgLeuLysThrAsmlleLeuGlmIyrAlaSerThr
                                                                                                                                                                                                                                                                                                                                742 ArgProProIhrLeuSerProIleProHisIleProArgSerProTy11,ysPhePloSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2182 TCACCCTTACGGATTCCTGGAGGGAACTCTATATTTCACCCTGAAGAGTCCATATAAA
                                                                                                                                                                  702 ValGinGluThrPheLysArqValLeuileLysGluGluGluTyrAspSerileIleVal
                                                                                                                                                                                                                                                                                                                                                        782 HcSerdiadlytouProThrPysMetThrPycArgSetArgiletouValser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           882 LysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Benedict, William F. Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READMREE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/09469522
Patent No. US20020151461Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Xu, Hong-Ji
Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: P.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-469 522-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
                                                                                                                            9
                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
```

```
200 MethenLent/98010Profyth/981brAtaVallleProffeAshdlySerProArgThr 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 AsuteuteutystluileAspthrSerThrLysValAspAsnAlaMetSerArgLeuLeu 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120 LystystyrAspValleuPheAlaLeuPheSertysLeuGluArgThrCysGluLeuIIe 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            140 TyrtouthrelinProSerSerTleSerThrGluffeAsnSerAlaLeuValLeuLys 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160 ValserTrpIleThrPheLeuLeuAlaLysGlyGluValLeuGluMetGluAspAspLeu 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         247 GILICH GGA PPAGATTH HATTAGCTAAAGGGGAAGTAFTAGAAATGGAAGATGATGFG 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180 ValileSerPheclinicoMetLeuCysValicoAspTyrPhelleLysLeuSerProPro 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (0) GLOALLICALITICAGITAALGCIALGIGGIGGITGATITIATIAAAQIGIGGCIGCC 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      467 ATGLITOCLOAAAGAAGGALALAAAAGAGCIGTLALAGGGALLAARGITGAGGTGGAAGA 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220 ProArqArqstyctnAsuArqSerAlaArqTleAlaLysG1nLeuGluAsnAspThrArq 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4.27 PPPAGGGADGICAGAACAGGGGGGGALAGGAAACAAGLAGAAA IGATAGAAGA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240 HettettestuvatteurystystiutissturysAsniteAspStuvattysAsnvatryr 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            260 PhelysAsnPhelleProPheMetAsnSerLeuGlyLeuValThrSerAsnGlyLeuPro 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 ATGTEGS ICAGITITIACTGAGGIACGAAAAACATAGAATCAGTGTGTGATAAATTGTTT 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4218
816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0S 09:026 459A:29 (1:895) x 0S:09:469 522-3 (1:3218)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative.
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches:
APPLICATION NUMBER: US,004,459,522
                                                                                                                                                          REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ ID NO: 4+
                                                                              APPLICATION NUMBER: 09,026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Caps:
                   FILING DATE: ZZ-Dec 1999
CLASSIFICATION: *Unknown.
                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                   LENGIH: $218 base pairs
                                                                                                                                                                                                                       512/418 - 3000
                                                                                               FILLING DATE: * UNKNOWN * ALTORNEY/AGENT INFORMATION:
                                                                                                                                       NAME: Hibler, David W.
                                                                                                                                                                                                                                        IELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                         SIRANDEDNESS: single
                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO. 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4192.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40.858
                                                                                                                                                                                                                                                                                                                                                                 toPology: Linear
                                                                                                                                                                                                                                                                                                                                                                                                       NAME / KEY : (105)
                                                                                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity;
Onery Match;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Acceptition 1 Scores:
                                                                                                                                                                                                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              15 09 469 522 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
```

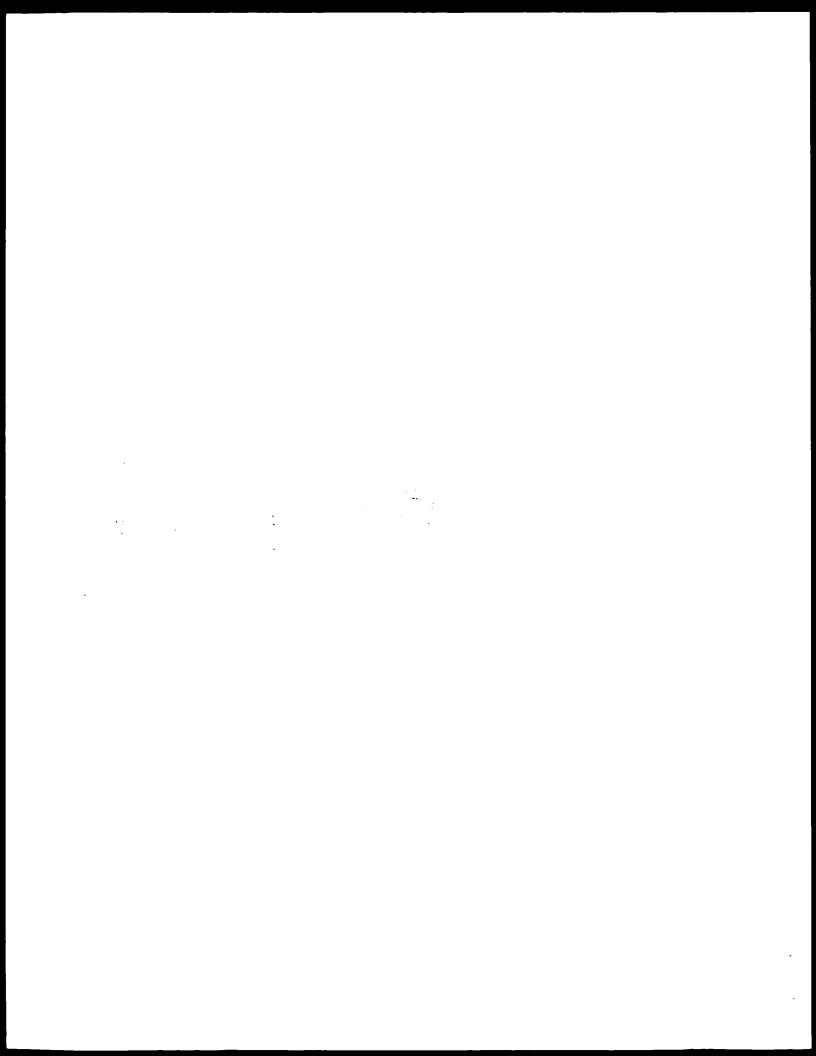
```
207 TCTTTCCCATGGATTCTGAATGTGCCTTAATTTAAAAGCCTTTGATTTTACAAAGTGATC 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         567 ACCTCAGCCTTCCAGACCCAGAAGCCATTGAAATCTACCTCTCTCACTCTTTGACTCTTTATAAA 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1027 TATTACCGAGTAATGGAATCCATGCTTAAATCAGAAGAACGATTATCCATTCAAAAT 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         507 CCAAAGAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAATGCAGAGAACACACAAGA 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        · . . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               55,3
                                                                                                                                                                                                                  787 ACTOCAGITAGGACIGITAIGAACACIAICCAACAAITAAIGAIGAITIIAAAITICAGCA 846
                                                                                                                                                                                                                                                                                                                                                                                                                                     6,6,4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            400 AlaValGlyGlnGlyCysValGluIleGlySerGlnArqTyrLyGlcuGlyValArdLeu 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   440 PheserLysLeuLeuAsnAspAsnIlePheHisMet.SerLeuLeuAlacysAlaLeuGlu 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               460 ValValMetAlaThrTyrSerArqSerThrSerGlnAshLeuAspSerGlyThrAspLeu 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480 SerPheProTrp11e1cuAsaValLeuAsanLoutysAlaPheAspPheTy1LysVallTe 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     580 ProLysLysLysClyserThrThrAraValAsnserThrAlaAsnAlaclaThrGlnAla 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600 ThrserAlaPheGinthrGIntysProLeutysSerthrSerLeuserLeurhetyrLys 619
                                                                                                                    300 AlaArgi.cuPhel.cuAspHisAspLysThrl.cuGln.PhrAspScr.HeAspScr.PheGlu 419
                                                                                                                                                       667 GCAAGATIATITITIGGALCALGATAAAA CCTTCAGACTGATTCTATAGACAGTTTTGAA 726
                                                                                                                                                                                                320 ThrGluArgThrProArgLysSerAsnLeuAspGluGluValAsnVall16ProFroHis 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            620 EysValfyrArqLeuAlaTyrLeuArqLeuArqLeuAysGluArqLeuLeuSerGlu 639
547 TICAAAAAIITTALAOPITILAIGAALIOIGITGAANIGIAACALOLAALGGACTIONA 506
                                    380 GluSerIleLeuLysArgValLysAspileGlyTyrTleTheLysGluLysFheAldLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                500 GluSerPhelleLysAlaGluGlyAsnLeuThrArqGluMetlleLysHisLeuGluArq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  520 CyscluffisArgIleMetCluSerLeuAlaTrpbeuserAspserProbentheAspleu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540 HetysClnSertysAspArgGluGlyPtethrAspHisLeuGluSerALa/ysProten
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       560 AsnieuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArqSer
                                                                                                                                                                                                                                                                         340 ThrProValArqThrValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; OY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                        ŝ
                                                                           a
                                                                                                                    ò
                                                                                                                                                     급
                                                                                                                                                                                                                                    а
С
                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qu ··
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G
```

```
| 560 | GLULEUMEUARASPATQHISLORASPGELLEMENWETWESPARORENGER | 579 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILTERED AND CONTROLLED FOR THE PROPERTY OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1987 TOCACIAGOCOCCIACOTIGICACIAGOCICACATICOCCGAAGOCOTIACAAGIT1 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (807) AAAGIGAAGAATATAGACCIIAAATICAAAATCAITGTAAGAGGAGGATCTTCCT 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.47 SCIASTICACCCITACCCATICCFGGGGAACATCTATATTTCACCCTGAAGAGGCAA 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LING TATAAAATTICAGAAGGICTGCCAACAACAAAAATGACTCCAAGATCAAGAATTA 2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2287 AAAAAACTACGCTTTGATATTGAAGGATCAGAGGAGGAGGAGGAGTAAAACATCTCCCA 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.57 GIATGAATTGGTGAATGATTGGGGGATTTGTGAGAAGTTGGAGAAAATAAATGAGTGA 222£
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ляя Туууан уулал (CasptenlysPhetysTeTeTeValThralaTyrt.ysaspt.e099)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            700 HisAJuValCladiuThrPhoLysArqValLouIloLysGluGladluTyrAspSorIlo 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720 HeValPheTyrAsnSerValPheMetGlnArgLeuLysThrAsnIleLeuGlnTyrAla 739
640 HISPROGLULEWGLUHISILEILETRYTHKLEWPHEGLUHISTHKLEWGLuRASHGLUTYR 659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 740 SerihrArgProProThrLeuSerProlleProHislleProArgSerProTyrLysPhe 759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780 TyrLysIleSerGluGlyLeuProThrProThrLysMetThrProArqSerArqIleLeu 799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       800 Valsor(Log)y/Clusorpho/ly/thrsor/Clufystho/Clufys(LoAsnCloMotVal 819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A24 CysAsnSerAspAraValLeuLysArqSerAlaGluGlySerAsnProFroLysProLeu 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LystysteuArafheArgileGluSl,SerAspGluAlaAspGl;SetLysHisLeuPro 859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            800 SlychusertysPheGluClnDysLeuAlaCluMetThrSerThrArgThrArgMetCln 879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TILE OF INVENTION: MODIFIED REFINORIASTOMA THIMOR SHIPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2442 AAGGAGAAAAIGAATGATAGCATGGATACCTCAAACAAGAAGAAGAAA 2454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ниг LysdlotysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 51
JORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Benedict, William F
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 36, Application 05/09469522
Paton: 86, 0520020151461Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPRINTANT: Xu., Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ** OMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CllY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No. US2002015146
GENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIAIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PESULT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>. . .</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>...</u>
```

```
115 MetSerArgLeuLeuLysLysTyrAspValLeuPheAlaLeuPheSerLysLeuGluArg 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    135 ThrCysGluLeulleTyrLeuThrGluProSerSerSerlleSerThrGluLleAsuSer 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              155 AlaLeuValLeuLysValSerTrpIleThrPheLeuLeuAlaLysGluVulLeuGln 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127 GCATTGCTGAAAAGTTTCTTCATCACATTTTTTTTTAAGGGGAAGGGGAAGTATTAGAA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           175 MetGluAspAspLeuValileSerPheClnLeuMetLeuCysValLeuAspTyrPheile 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          235 GluAsnAspThrarg!!el!cGluValLouCystysGluHisGluCysAsr:!leAspClu 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    275 SerAsnalytonPraalaValalaAsaLeuserLysArdTusGlusLettyrEeutya 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 ATGTCAAGACTGTTGAAGAAGTATGATGTTGTTTGCACTGTTGAGCAAA11GGAAAGG 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     187 AIGGAAGAIGATOTGGIITGAIIICAGIINAIGGIAIGIGICCIIGACIAIIIAII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   215 GlySerProArgThrPrcArgArgGlyGlnAsnArgSerAlaArgIleAlaLySGlnLew.
                                                           SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-026-459A-29 (1-895) x US 09-469-522-36 (1-3113)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
                                                                                                                                                                                                                                                       PEGISTPATION NUMBER: 41,071
REFERENCE/DOCKEL NUMBER: 01x0:506
                                                                                            AFPLICATION NUMBER: US, 39,469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36:
                                                                                                                                                        PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCAFION: 7..2349
SEQUENCE DESCRIPTION: SEQ 1D NO:
                                                                                                                   FILING DATE: 22-Dec-1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                              TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                           LENGIH: 3113 base pairs
TYPE: nucleic acid
                                                                                                                                                                                               FILING DATE: <Unknown>
                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                      NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                   TELEFAX: 512,474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 36:
                                                                                                                                                                                                                                                                                                                                                                          SECTENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4017.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             83.068
                                                                                                                                                                                                                                                                                                                                                                                                                                                        COPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-469-522-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>ء</u>
۔۔
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
```

ي.	487		
يد -<:	295	ASDIJSASPIJAASPALAATGUPDAGUASPHISASPIJSTDTICOG DIBHASPSGT 314 	
> a	415	TIPASESETEREGIOTERGIBARGTERPROARGLYSSERASILAGAVALASB 334 FILLER FILLER FILLER FILLER FILLER FILLER FILLER FILLER FILLER FILLERA ANGAGA GARANA	
> 4	435	VallleProProBisThrProValArqTbrValMetAshThrTLeGlnGlnLeuMetMet 354 	
7 4	155	THE GRAND AND A SECTION OF THE FIRST TRANSPORT OF THE FIRST TANGEN OF THE SECTION	
> 2	787	The ValAsuProLysGluSet HeleuLysAraValLysAspHeGlyTyr HePheLys HELLICH HELLICH HELLICH HELLICH HELLICH HELLICH HELLICAN ANA GAAL CAAAAGAAAGAAAAGAAAAGAAAAGAAAAGAAA	
× 4	495. 847	GlotysePachatysAlaValGLyGlaGLyGysValGlatleClySerGlnArgTyrLys [144][14][14][14][14][14][14][14][14][14	
ہ ہ	415	LendlyvalarglentyrfyrargvalMertilusermetlentysserthollustargethillitillillillillillillillillillillillil	
× 4	4.45	LeusefilledlaasoPheseflysLeuLeuAsoAspAsoIlePhellisMetSefLeuLeu 	
ي	455	AladysalatoudaValValMetAlaThrTyrSerArgSerThrSerGInAsnLeuAsp 	
. A	475	SetGlybraspleuserPheProTrpHeLeuasnValleuasnleutssalabheasp 	
> 2	455	PhotyrLysValileGluSerPhelleLysAlaGluGlyAsnLeuThrArqGluMetille 	
ي ج	515	LysilistenGluarqCysGluffisarqIteMetGluSerLeuA.aTrpLeuSerAspSer 	
:- <u></u>	5.45	Proceeding Asplantiol proposition of the Asplantic of the Asplitation of the Asplantian of the Asplant	
is 2	1327	SerAladysProfesiAsofesifred estabasofitsThrAladiaAspMetTyrLeu 	
5 <u>a</u>	5.75	Set ProVallar qSet Prof.ySLyStlyStlySetThrThrThrArqVallAshSerThrAllaAsh 	
5-4	1447	595. A Lactud bridhed Ladbrigger and a Pheed bridge diggs Perical (statement) and the Hillight Hillight of the Hillight	
> 4	615	Serfeuthertyrfystystystaltyrargleuthafyrfæutargleutseithrfæutysglu 634 HILLHILLHILHHILHHILHHILHHILHHILHHILHHIL	_
	5.45	ArgiveteeseroladisProductaeachuffisThelleTrpfhriceuphecloffisThr 654	

```
| HELLI HILLI HILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1567 CGCCTTCTGTCTGAGGCCCCAGAATTAGAACATATGATCTGGACC;1111CCAGGACAC 16.26
                                                                                                                      2227 ACTABAÇATCI COCACCACACTOCAANI FLYACYAGAAACI COCAGAAL GACTIFITANI - 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   855 SerLysHisLeuProdlyGluSerLysPhedladluLysLeuAladluMetThrSerThr 874
                                                                           655 LeuGinAsnGjulyrdluLeuMetArqAspArqHisLeuAspÖlnlleMetCysser 674
                                                                                                                                                                                                                                            675 MetTyrGlyIleCysLysValLysAsnIleAspLeaLysHeLysIleIleValThrAla 694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            735 IleLeuGlnTyrAlaSerThrArqProProThiLeuSerProIleFroHisileProArq 754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SerProTyrtysPheProSerSerProLeuArqlleProGlyGlyAsh.HetynHeSer 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                775 ProbentysSerProTyrLysTleSerGludlyLeuProThrProThrLysMetThrPro 794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             815 ileasnGinMetValeysAsnSerAsparqValieutysArqSerAlaGluGlySerAsn 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    835 ProProLysProLeuLysLysLeuArgPheAsplleGluGlySerAspGluAlaAspGly 854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    875 ArgThrArqMetGlulysGlulysMetAshAspSetMetAspThrSetAshLysGluGlu 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                715 CluffyrAspScrifeffeValPheffyrAsuScrValPheMetGluArglaufysfluAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Search completed: January 19, 2003, 05:33:12 Job time : 162,334 sees
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2347 AAA 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         845 Lys 845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QQ
                                                                                    Š
                                                                                                                                                       3
                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \stackrel{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
```



```
Gentlore version 5.1.3
Copyright (c) 1993 - 2003 Compagen 15d.
```

oM nucleic nucleic search, using sw model four on: January 15, 2003, 15;20;22 ; Seurch time 94,3876 Seconds (without alignments) 16320,731 Million cell updates/sec	111 be: US 09 026-459A 28 Perfect score: 4455 Sequence: 1 GCGGCAGGCAGGAGGGG,AAAIGAGATAITGAIAGT 3455	Seating table: IDENTITY NUC Gapop 10.0, Gapoxt 1.0
---	---	---

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

lotal number of hits satistying chosen parameters:

393868 seqs, 222934149 residues

Sear ched:

787736

*0	1008	Listing first 45 summaries
Match	Match	first
Minimum	Maximum Match 100%	Listing
Fost processing: Minimum Match 0%		
_		

Published Applications NA:*	10 J. For J. S. J. Saray J. S. Bernard Seed Decombined (*)	2. Styles fight what as I spendence in NEW_PITE seque	<pre>4: /cqn2_6/ptodata/l/pubpna/US06_NFW_PUBL.scq:*</pre>	4: Zegož 6/ptedata/l/pubpna/Us06_pumenamu seq 🖈	5: [17] W.W. [40] [1] [1] 14 14 15 [10] W.W. [17] W. W. J. W.	6. Johnson Priparelata (Jambana / Evita - Pulse Misser)	7: /canz_6/ptodata/i/pubpna/US08_NEW_PUB.seq:*	8: /rqn2_6/ptodata/l/pubpna/USO8_PUBCOMB.seq:*	9: /cqn2_6/ptodata/l/pubpha/US09_NEW_PUB.seq:*	10: /rqn2_5/ptodata/l/pubpna/us09_PUBCOMB_soq.*	11: [min_wisk_diskid] (pushbra] historal wisk again,	12: /cqn2_6/p3-data/1/fabbpa/MS10_PUBCOMB.seq:*	14: //rgn2_6/phrodata/1/pubpna/US60_NEW_PUB.seq:*	14: /cqn2_6/ptodata/1/pubpsa/US60_PUBCOMB.seq.*
instabase :														

Fred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

		æ				
X Sult	Score	Outery Match	Ouery Match Length DB	Ŧ	115	Description
-	5 5 F	- 001		2	TICL DIGGER OF COLUMN TO	
•	*	0.7.7		7	97.770.654.60.80	Section Co. Appl
7	1447	9.4.8	4554	=	1-556-64-60-60	Sequence 1. Appli
~	1447	9.6	4833	.*	US 09 954 531 143	Section 143. Apr
4	144 1. H	9.9.7	1554	0	US-09-469 522 50	Sequence 50, April
ı.°	~ # ~	6.76	7688	=	US - 09 - 469 - 522 - 30	Sequence 36, Appl
æ	4 4 1 %	6, 6,6	+25.5	0.7	25 - 225 - 63 \$ - 60 - 55	Sequence 32, Appl
7	1575	94. 4	3.35.5		US-09-469-522-44	Sequence 34, Appl
x	4247.B	0.46	1.945	_	US-09 469-522 40	Sequence 40, Appl
	1226	4.14	1321	=	88 - 88 - 488 - 488	Sequence 38, App.
2.	7171	93.0	4218	=	US-09-469-522 3	Sequence 3, Appli
11	4107	5.68	3115	=	US-09-469-522-46	Sequence 36, Appl
1.2	4088.6	89.4	3.18.1	13	US-09-469-522-48	Sequence 48, Appl
* 1	3076.6	89.0	1117	=	US-09-469-522-46	Sequence 46, Appl
14	8014.8	87.4	3347	9	US-09-469-522-42	Sequence 42, Aprl
	2827.4	81.8	1161	0	US 09:469:522 44	Sequence 44, Appl
1.6	2750.4		2995	0	US-09-860-211-7	Sequence 7, Appli
1 /	47H		451	5	US-09-796-692-7740	Sequence 7740, Ap
Ξ	142.2		411	Ξ	US-09-864-761-3131	Sequence 3131, Ap
1.5	129	1.7	129	=	US-09-864-761-19910	Sequence 19910, A

Sequence 296, Appliacy proposed of Appliacy and Sequence 1, Appliacy proposed of Appliacy pro	OD HELDSSOR
US-09-964-824A 296 US-09-292-758-47 US-09-794-698-1 US-09-794-888-1 US-09-794-888-1 US-09-794-888-1 US-09-754-888-1 US-09-754-884-4 US-09-754-884-4 US-09-754-884-4 US-09-754-884-4 US-09-754-884-4 US-09-754-884-4 US-09-754-884-1 US-09-960-352-1218-1 US-09-960-352-1218-1 US-09-960-352-154-8 US-09-97-98-842-842-8	ALIGNMENTS  522-28  c. 26, APELICATION SS/09469522  AL INDORATION:  AL USACOLISTAGA  AL INDORATION:  Hu, Shi-Xue Hencdict, William E.  CHOU, YOUN!  FILLE OF INVENTION MACHED BLITHOUSAGE MACHED  FORDERSEE: ATTOIN MACHED  FORDERSEE: ATTOIN MALE & DUTKEE  STREET: P.O. HOX 4433  CITY: HOUSTON  STATE: TX  COMPUTER: USA  ZIP: 77210-4433  CURSEIFICATION NUMBER: 05/026,459  FILING DATE: CURKNOWN:  RECISTRATION NUMBER: 01,071  RECISTRATION NUM
2.00 2.00 3.960 4.02 4.02 4.02 4.02 4.02 4.02 4.02 4.02 4.03	ALIGNMENTS  SULT 1  -09-469-522-28  Sequence 28, April action us/09469522  Fatol No. Usevolo151461A1  APPLICANT: No. Hong Ji Hu, Shi-Yue Benedict, William F. Shou, Yunii  FILE OF INVENTION: And this hilliam F. Shou, Yunii  FILE OF INVENTE ADDRESS: ADDRESSE: ATDOID, White A DUTKEE STREET: P.O. HOX 4433  CUTY: Houston STRAE: TX  COUNTRY: USA  ZIP: 77210-4433  COMPUTER: LHW PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Ve COMPUTER: LHW PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Ve CURRENT APPLICATION LATA: APPLICATION NUMBER: 05/026,459  FILING DATE: -CURROWA- FRID APPLICATION NUMBER: 01/071  REFERENCE/DOCKET NUMBER: 01
200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PESULT 1 US-09-469-522 Sequence 28 Tatel Ne. CENERAL 1 TITL NUMB CORP CORP TITL TITL TITL TITL TITL TITL TITL TIT

```
; oy
                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
O
                                                                                                                                                                                                                                                                                                                                                                  FIL TITAN TIACTAAAAGAAATIGAIACCAGTACTAAAGITGATAATGTTATGTATGTG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 IIGAAGAAGIATGAIGTATTGTATTGGAGTTGAGGAAATTGGAAAGGACATGTGAAGTT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541 FUGGEGALLICALTICACTIANTGCTALGTGTCCTTGACTATTTTATTAAAACTCTCACCT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2. ANAALIALIGAAGIICTCTGTAAAGAACAIGAATGTAATATAGATGAGGTGAAAAATGTT 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 ACAGAAGAACCTGATTTTACTGCATTATGTGAGAAATTAAAGATACAGAACAACCAGATGGCAGA 120
                                                                                                                                                                                                                                                                                                            51 ACAGAAGAACCIGATITTACTGCATTATGTCAGAAATTAAAGATACCAGATGATGATGAGA 120
                                                                                                                                                                                                                                                                                                                                               12] GAGAGGTTTRGTTAACTTGAAAAATTTGATGTGAATAAAAGTATAATATAAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                      181 ATTCAAAAGAAAAAAAACHGGGGGAAHGTGTATGTPTATTGCAGGAGTTGGAGTTAGAT 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 GAGATGTGGTTCACTTTTACTGAGCTACAGAAAAACATAGAAATGAGTGTGGTAAAATTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LITAACITACTAAAAGAAATIGATACCAGTACCAAAGIIGATAAIGCIATGICAAGACIG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #1 FIGAAGAAGIAIGATGATTGTTTGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  401 ATATATITGACACACAGCAGTICGATATCTACTGAAATAAATICTGGATIGGTGCTA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           441 AAAGTITCITGGAICACAITITIAITAGCIAAAGGGGAAGIAITACAAAIGGAAGAIGAI 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8. IAITICAAAAAITITATAGGITITATGAAITGIGIGITGGAGGITGTAAAGAIGGAGTT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841 CORGAGGITGAAAATCITTCTAAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PATGCARCALTALLITIGGALGALGAFAAAGTGTTGAGAGTGAFTCTAFAGAGAGTTTT 960
                                                                                                                                                                                                                      0; Gaps
                                                                                                                                                                                                    841 CAGAGGIIGAAAAICIIICIAAACGAIACGAAGAAAIITAICIIAAAAAIAAAAACIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENT. ATTCAAAAAAAAAAAGGGAACTGTGGGGGAATCTTTATTGCAGGAGCAGTGGACTTAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SAGATOTICACTITITACTICAGOTACAGAAAACATAGAAATCAGTGTCCATAAALTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541 TIGIGATITCATITCAGITAATGCIAIGIGICCITGACIAFTITATIAAACICICACCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.1 CCATGITGCICAAAGAACCAIAIAAAACAGCIGITAIACCCATIAAIGGITCACCICGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 10; Length 3455;
                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                           100.0%; Score 3455;
                                                                                                                                                                0; Mismatches
                                                    LOCATION: 7..2691
SEQUENCE DESCRIPTION: SEQ ID NO: 28:
                                                                                                                                              Pred. No.
Listology: linear
                                                                                                                                                              Matches 4455; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                  NAME / KEY -
                   FEATURE:
                                                                                          US 09 469 522-28
                                                                                                                             Cuery March
                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                       -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ÷,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ÷.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ê
```

```
961 GAAACACAGAGAAAACAGCACGAAAAAAGTAACGITGAIGAAGAGGIGAATGIAATICCIICCA 1020
                                                                                                              1021 CACACTCCAGTTAGGACTCTTATGAACACTATCCAACAATTAATGATGATTTTAAATTGA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1441 TIGICITITICCCATGGATTCTGAATGTGCTTAATTTAAAAGGCTTTGATTTTAGAAGTG 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1681 CITAATCIICCICICCAGAATAATGACIGCAGASAIAIGIATCIITCICCIGIAAGA 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1741 TOTHCAAAGAAAAAGGTICAACTAGGGGIGIAAATTCTACIGGAAAIGGACAGAGACAA 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1741 TOTOCAAAAAAAAAAGGTTOAAGTAOGOGGGGAAAATGCTAOTGCAAAATGCAGAGACACAA 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1981 TATGAACTCATGAGAGAGAGGCATTIGGAGGAAAITATGAIGTGTTTGATGIAIGGGAIA 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081 GCAACHGAHCAACCTHCAGAAAATCHGATTHCCTATTTHAACAACHGCACAGTGAATCCA
                                                                                                                                                                                                                                                                                                                                           1021 CACACTCCAGTTAGGACTGTTATGAACACTATGCAACAATTAATGATGATTTAAATTGA
                                                                                                                                                                                                                                                                                                                                                                                                                           1141 AAAGAAAGTATA TGAAAAGAGAAGAGATATAGGATACATGTTTAAAGAGAAATTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141 AAAGAAAGTATACTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGC!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1501 ATGGAAAGTTTTATGAAAGCAGAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1501 ATCGAAAGTTTTATCAAAGCAGAAGGCAACTTGACAAGAGAAATGATAAAACAFTTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1621 CTTATTAAACAATCAAAGGACCGAGAGGACCAACTGATGACCTTGAATCTGCTTGLCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1801 GCAACCTICAGGCTTCCAGAGCCATAGAATTTGAAATCTACCTCTGTTTCACTGTTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1861 AAAAAAGTGTATGGGGTAGGGTATGTGGGGGTAAA1AGAG111G1GAAGGGGTLGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1921 GAGCACCAGAATTAGAACATATCATCTGGACCCTTTTCTAGCACACCCTGCAAATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1201 AAAGCTGTGGGAAAAGCTTGTGTGGAAATTGGATAGAGGGATAGAAAGTTGGAGTTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1261 TEGERATEGAGEATGGAATGGATGGATGGTTAAATGAGAAGAAGAAGAAGATTAFGGALLGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321 AATTTTAGCAAACTTCTGAAIGACAATTTTTCAIAIGTCTTTATTGGCGTGCGCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1381 GAGGTTGTAATGGGCACATATAGCAGAAGTAGATGTGAGAATGTTGATTGTGGAACAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1561 CGATGTGAACATCGAA1CA1GGAATCCCITGCATGGCTCTCAGATTCACCTTTALLIGAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1801 GCAACCTCAGCCTTCCAGAGCCAGTGCAATCTAGCTCTCTGTTTCAGTTTTAT
```

2040 2100 2100. 2160 2220 2220 2280	2280 2340 2400 2450 2520 2520		1 20 20 40 40 60 60 70 70 11
FAUSAACTECAGAGAGACACCATTACAAATTATACATGTGTGTGTGTGT	THE CHARLES AND SECOND TRACED BY A CONTROLL CANDENGES THAT AND A CONTROLL CANDENGES AND A CONTROLL CANDERS AND A CONTROLL CANDENGES AND A CONTROLL CANDERS AND A CONTROLL CANDENGES AND A CONTROLLAR CANDENGES AND A CONTROL		A HAAAALS LOCAAL BOTT LOGGE AL FOLLA ACCORDING A AL BAAAALS LOCAAL BOTT LOGGE AND A STANDARD A STAN
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2281 2281 2441 2441 2401 2401 2461 2451	252 258 258 264 264 276 276	
8 5 5 5 5 5 5 5 5		1 8 3 8 5 8 5 8 5 8	

```
3401 AAATTTTGCTTTTAATTAAATAAAAGCTGGAAGCAAAGTATAAATGATGATGTGT 4460
                                                                                                                                                                                                                                                                                                                                     1181 AATTATOOTGAAGTOTTOTGAAAAATGGATATTATTAGAAATTAGAAAAAAAHTAA 4240
                                                                                              3301 AAATTTTGCTTTTAALLAAATAAAAGGIGGAAGCAAAGIALAAMAALALGALAATAIGAL 3360
                                                                                                                                                                                                                                                                                                              3361 ACTACTGAAACAGATTICATACCTCAGAATGTAAAAGAACTTACTGALTATTITTTCAT 3420
3121 CITAGAAAAFGEGEGEAFGEATGTTCCAAAFGGAATILGALEGACTGCCCATFCACCAA ATBU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hu, Shi-Xue
Benedict, William F.
Zhou, Yunii
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUDPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                             3421 CCAACTIATGITITIAAATGAGGATIATIGAIAGT 3455
                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 41,071
REFERENCE/FOORTH NUMBER: 01XC:506
FELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFRA: 512/444-3070
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US, 09, 469, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPTRATING SYSTEM: PC DOSZMS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 09/026,459
                  FILING DATE: 22-Dec 1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 > Sequence 1, Application 08/09469522
| Patent No. US20020151461A1
| GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 3555 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEINS

    Unknown >

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION: NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: P.O. BOx 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT AFFLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SHOUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: 7..2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
ZIP: 77210:4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-1
                                                                                                             3
                                                                                                                                                        ŝ
                                                                                                                                                                                           2
                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                   30
                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                    ें
```

..

969 GAGAACACAGAAAAAGIAACCIIGAIGAAGAGGIGAAIGTAATTCCTCCACACACTCC 1028 1008 ATTAITTIGGATCATGATAAAAGTGTTCAGAGTGAITCIAIAGACAGITTIGAAAAGA 1067 108 GCAGGACAGGGCCCGGAGGACCTGCCTCTCGTCAGGCTTGAGGTTTGAAGAAACAGAAGA 167 69 ACCIGATITIACIGCALIAIGTCAGAAATTAAAGATACCAGATCATGTCAGAGAGAGAGC 128 129 IIGGIIAACIIGGGAGAAAACIIICAICIGIGGAIGGAGGIAIIIGGGAGGIIAIIAIIICAAAA 188 228 IIGGIIAACITGGGAGAAAGIFFIGATGFGGAGGFAFFGGGGGGGTFAFFGAAA 287 189 GAAAAAGGAACTGTGGGGAATGTGTTTTTTTTGCAGCAGTTGACCTAGATGAGATGTC 248 249 STICACITITACTGAGCIACAGAAAACATAGAAATCAGTGTCCATAAATTGTTTAACTT 308 309 ACTANAAGAAATTGATACCAGTACCAAGTTGATAATGCTATGTCAAGACTGTTGAAGAA 368 429 GACACAACCAGCAGTTCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTC 488 549 IICAIIICAGIIAAIGCIAIGIGIGIGAGIATITTATIAAAGICTCACCIGCAIGTI 608 707 609 GOLGAAAGAACCATATAAAACACCIGTTATACCCATTAATIGGTTCACCTCGAACACCCAG 668 HELT TO THE HITTER GAAL POLITION OF A AAALI HITTELLI HITT 3(9 )IALGALGIATICILLIGGACICTLCAGGAAATIGGAAAGGACATCTGAAGTTATATATT 428 528 GACACAACCCACCACCATATCTACTGAATAAATTCTGCATTGCTGAAAAAGTTTTC 587 889 GOBAGGTCAGAACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTAT 728 758 STRANGICAGAACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTAT 827 HITTELLE HELLE HEL 849 TGAAAATCTTTCTAAACGATACGAAGAAATTTATCTTAAAAATAAAAGATCTAGATGCAAG 908 909 ATTALLITIGGALCALGATAAAACTCTICAGACTGATTCTATAGACACTTTTGAAAGAGA 968 Gaps 9 GCAGGACAGGGGCCGGGAGGAGGTGCCTCTCGTCAGGCTTGAGTTTGAAGAAGAAGA 68 889 AAALILIALACCTILLALGAATICTCTIGGACTTGTAACATCTAATGGACTTCCAGAGGT 469 ITGGATCACATITITATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGTGGTGAT 2.8 SCINAAAGAACCATATAAAACAGNIGITATACCCATTAATGGTTCACCTGGAACACCCAC 729 IGAACITCTCTTAAAGAACATGAATCTAATATAGATGAGGTGAAAAATCTTTATTTCAA 0 Length 3555; Indels 0; 99.8%; Score 3447; DB 10; lnn.0%; Pred. Nc. 9; 0; Mismatches SEQUENCE DESCRIPTION: SEQ ID NO: 1; 100.0%; Matches 3447; Conservative <!milarity</pre> US 09-469-522-1 Chery Match Best [oc.4] S 3 5 ŝ ŝ Ē Š :; ŝ S 5 ŝ ŝ

1128 AGTTAGGACTETIATGAACACIAICCAACAAITAATGAIGAITTTAAATTCAGCAAGTGA 1187 1029 AGTINGGACTGIINIGAACACINICCAACAAIIAATGAIGAITIIAAAIICAGCAAGIGA 1088 1149 TATACTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAAGCTGT 1208 1449 CCCATGGATTCTGAARGIGCTTAAATTAAAAGCCITTGATTTTAGAAAGIGATCGAAAG 1508 1209 GGGACAGGGTTGTGGAAATTGAATGAAGGGATACAAAGITGGAGTTGGTTGTATA 1268 1308 GOGACAGGTTGTGTGGAAATTGGATCACAGCGAIACAAACTIGGAGTTCGCTTGTAITA 1367 1269 CCGAGTAATGGAATCCATGCTTAAATCAGAAGAAGAACGATTATGCATTCAAAATTTTAG 1328 1389 AATGGCCACATATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTT 1448 2049 GAAGAATATAGACCITAAATICAAAAICATTGTAACAGGATACAAGGATCTTCCICAIGC 2108 1548 CCCATGGATICIGAAIGIGCIIAAIIIAAAAGCCIIIGAIIIIIACAAAGTGAIGGAAAG 1607 1569 ACATCGAATCATGGAATCCCTIGCAIGGCLCICAGAITCACCTITATTACATCTTATTAA 1628 1689 ICCTCTCCAGAATAATCACACIGCAGCAGATATGIAICTTTCTCCTGTAAGATCTCCAAA 1748 1788 "CCTCCCAGAATAAICACACTGCAGCAGAIAIGIATCTTTCTCCIGIAAGAIGTGCAAA 1847 1908 AGCCTTCCAGACCCAGAAGCCATTGAAAICTACCTCTTTCACTGTTTTATAAAAAAGT 1967 1869 GIAICGGCTAGCCIAICICCGGCTAAAIACACIIIGGGAAACGCCIICIGICGGAGCC 1928 1989 CATGAGAGAGGGATTTGGACGAATTATGATCTCTTCCATGTATGCGAAAGT 2048 1929 AGAATTAGAACATATCAICTGGACCCTTTTCCAGCACACCGCGCAGAATGAATTAGAACT 1988 2088 CATGAGAGACAGCATTTGGACCAATTATGATGTTTCATGTATGGATATGCAAAGT 2147 1329 CAAACTICIGAAIGACAACATITIICATAIGICITIATIGGGGIGCGCICTTGAGGIIGI 1428 CAAACTTCTGAATGACAACTTTTTCATAGGTCTTTALIGGCGTCCCTTCAGGTTCT 1509 TITTATCAAAGCAGAAAGGTAACTTGACAAGAAATGATAAAAACATTTAGAACGATGGA 1809 ACCCTFCCAGACCCAGAAGCCATTGAAATCTACCTCTTTTCACTGTTTTATAAAAAGI 2628 ASAATTASAATATYATETSIAYYYTTTTTCCASOAAACAGAAATGASAATGAAACT . ò ď. qq ò op O Q ò ò qq ò g ò a δ 겁 ò

```
HITTHEFFILLE FILLE FILLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8009 CLIGATAACCCAGGCCTGTGACTAGCTTGCCTTCTTGTAGCATATAGGTGATGTTTG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3108 CTSATAANSCAGGSCTGTGTGTGTAGTTTGCCTTGTTTTGTAGCATATAGGTGATGTTTG 3167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4129 ATGTGTCCTATCTATCTTCCAAATGCAATTTGATTGACTGCCCATTCACCAAAATTATCC 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2.888 TFOACOTTACGGATTCCTG-GASGARATCTATATTEACOCTGAGGCCGAATAAA 2447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.349 AATIINAGAAGGINIGNAANANANAAAAAGAGIGGAAGAIGAAGAAINITAGIAIG 2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2508 AATEGGEGAA EGA LEGGGGAVITEIGAGAAGITEEAGAAATAAAIGAAHGGIAFGTAA 2567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2469 Paddgaddgigigdigaaaaaaaagagigmgaaggaaggaagggggiggiaaaagaggaaaaa 2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2529 AMTACGMITTGATALIGAAMAAFCAGAAGGAAGGAAAGTAAACAFCFCCAGGAGA 2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2589 GTCCAAATTTCAGCAGAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAAGCA 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2649 GAAAA IGAA IGALAGGA IGGA IGGA IAGGI CAAAGGAAGGAAA IGAGGAI CYCAGGAGGII 2708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2209 TOGLOGAMAMEGIGLAMAMMEGALIGATMINIMICAMAMAHMIGAMIAAMMI 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2808 TOSTGGACACTGTGTACACCTGTGGATTGATGTGTGACAGATGTGACAGTGTATAACTT 2867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2829 TOCACATOTAATIGITEGGGGGALIGCIAAGGGACITGAAATGITAGTCALTGTTATITA 2888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2928 FONTAGALGCAALIGGILGGG IGATECTAAGCCACTTGAAATGTTAGTCATTGTTATTTA 2987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2889 TACANALIGAAAA1011GIGIAAA1CCIGGGALIIAAAAAGTIGIAGGAGATIGTITCC 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2949 FOTTCCAAAGTAAAATTGCTGTGTTTATGGATAGTAAGAATGGCCCTAGAGTGGGAGTC 3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4059 CLOTTGEFFTFFALFAATTLALALALALALITEHTTAACHTTAACAFGAACACCCFFAGAAA 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2109 TOLLCAGGAGACHICAAAGGIGIITIGAFCAAAGAAGAGGAGIAIGATGTALIATAGI 2168
                                                                                                                                                                                                                                        2268 ALICIALAACIGGGICLICALGCAGACACAAACAAATATITIGCACIATGCTTCCAC 2327
                                                                                                                                                                                                                                                                                                                     2229 CAGGGGGGGTACGTTGTCACAATAGGTCACATTGCTGGAAGGGGGTTACAAGTTGCTAG 2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZZB9 TEMACCTIACCALICCICAGGAACAICIATATTICACCCIGAAGAGICCATATAA 2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2568 CAGGGGCGTGTGCTCAAAAGAAGTGCTGAAGGAAGCAACCTCCTAAACCACTGAAAAA 2627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2628 ACTRACCOTTOATATTCAACCATCACATGAAGCAGAACTAAACATCTCCCAGCAGA 2687
                                                                                                                                                      2169 ALLCTALAACTCCCHCHCALCCAGGAGACTGAAAACAAATAFFTGGAGTALGCTTCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>-</u>
                                                                    1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               =
                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                          =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
```

```
TITLE OF INVENTION: Frocess for identifying Anti-Cancer Therapeutic Agents Using TITLE OF INVENTION: Gene Sets
FILE REFERENCE: 689290-77
                                                                                                                                                                                    3369 AACAGATITCATACCTCAGAATGTAAAAGAAGTTACTGATTATTLETLETATEGAACTTA 3428
                                                                                                                                                                                                                                                                                 129 TTGGTTAACTTGGGAGAAAGTTTCATCTGTGGATGGAGGTATTGGGAGGTTATATTGAAAA 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       419 GAAAAAGGAACTGTGGGGAATCTGTATCTTTATTGCAGGTTGACCTAGATGTGT 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           239 GCAGGACAGCGGCCCCGGAGGACCTGCTCTCGTCAGGTTGAGTTTGAAGAAACAGAAGA 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     249 GTTCACTTTTACTGAGGTACAGAAAAACATAGAAATCAGTGTGGTGCATAAATTCTTTAACTT +08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0.0 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3189 IGAACTOTICIGGAAAAAIGGAIAITAITAGAAATTAGAAAAAAAAATTAOTAATTITTAOA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           299 ACCTGATTITACTGCALTATGTCAGAAATTAAAGALAGCAGATCATGTAAGAGAGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               189 GAAAAAGGAACTGTGGGAATGTGTATTGTAGCAGCAGTTGAGTTAGATGTG
                                                                                                                                                                                                                                                                99.8%; Score 3447; DB 9; Length 4839;
100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Pred. w...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT PILING DATE: 2002-05 02
PRIOR APPLICATION NUMBER: US/60/231,134
PRIOR FILING DATE: 2000-09-18
PRIOR FILING DATE: 2000-09-20
PRIOR PILING DATE: 2000-09-20
PRIOR APPLICATION NUMBER: US/60/234,003
PRIOR PILING DATE: 2000-09-20
PRIOR PILING DATE: 2000-09-20
PRIOR PILING DATE: 2000-09-20
PRIOR PILING DATE: 2000-09-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/954,531
                                                                                                                                                                                                                                                                                                                        3429 TGTTTTTAAATGAGGATTATTGATAGT 4455
                                                                                                                                                                                                                                                                                                                                              Sequence 143, Application US/09954531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 1392
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 3447; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent No. US20020165180A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Weaver, Zoe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 B 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEC ID NO 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                 q
                                                                                                                                                                                                                                           φ
                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                             ò
```

<u>a</u>

¥0.	ACTAAAAQAATTGATAPPAGTAQDAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAA	368
55.0	TAAAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTG	598
5 5 5 E	GTATGATGTATTGT FFGAGTGTT THEFT GTATGTTTGGAGTGT	428 658
424 653	WCACAACCCAGCAGTEGAATATCTGAAATAAATTCTGCATTGGTGGTGATAAACTT FEETELELELELELELELELELELELELELELELELELEL	∞ –
489	SAL'ACALITITATIACCIAAAGGGAAGTATTACAAATGGAAGTGGTGTTA ETTELLITITITATTAYCTAAAAGGGAAGTATTACAAATGGAAGATGGTGA SALCACATTTTATTAYCTAAAAGGGAAGTATTACAAATGGAAGATGGTGA	548
2. t.	121	
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	8 = 8	668 898
£4.4 £4.8	OCTAGGECAGAACAGGAGGCATAGGATAGGAAAAAAA 	728 958
729 959	I GAAG  - I   GAAG	788 1018
789	TITTAIGAATICTCTEGACTIGTAACATCTAAIGGACTE 	4 ⊖
843 1073	IGAAAA ICITICI AAACGATACGAAGAATTTATCTTAAAAATAAAGATCTAGATGCAAG 	908 1138
505 1 ₹ 1 ±	ATTACT PTTGGATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACACA 	~ ~
2 45 <u> </u>	GAGAACACACAGAAAAAABTAACCTTGATGAAGAGGTGAATGTAATTCCTCCACACACCCCCTCACACACA	C) (C
1029	29 ARTHARGACTRITALRAACACTARCCAACATAATGATCATTETAAATTCAGGAAGTGA 108 	1088 1318
7 7 2 7 3 7	CAAGOTTOAGAAAALCIGALLICOLATITTAACAACTGCACAGIGAATCCAAAAGAAAG FITHTITTITTITTITTITTITTITTITTITTITTITTITT	_ ~
1149	IATACTGAAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAGGTGT 	1208 1438
1205	OSDACAGGGT FGFGTCGAAAFFGCAFCAGCGATACAAACFTGGAGFFCGCFFFGFAFFA 	9 6
1.2509		132 155
4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	- AAAN TICTGAATGACAACATTITCATATGTOTTTATGGGGGGGGCTGTGAGGTTGT 	138 161

2229 CAGGGGGGTACCISTGACATACCICAGATACCICAAAGCCTTACAAGTTGCTAA 2288 2519 TICACCTIACGGATECTGGGAGGAACATCTAIATTTCACCCTGAAGAGCCATATAAA 2578 1389 AATGGCCACATATAGCAGAAGTACAICTCAGAATATTGATTGTGGAGAGAGATTGTGTGTT 1448 1739 ITITATCAAAGCASAAGGCAACTIGACAAGAAAATGATAAAAACATTIAGAACGATGTGA 1798 1689 TCCTCTCCAGAATAATCACACTGCAGATATGTATCTTTCTCTCTGTAAGATCTCCAAA 1748 1919 TGTTTTGAAAAIAAIGAGAGTGGAGAIAIGIAIGIIGIGGGGGAAGAIGGAAA 1978 1749 GAAAAAAGGTTGAAGTAGGGGGGGTAAATTGTAGTGGAAATGGAGAGAAAGAAAGAAAGTG 18U8 2049 GAAGAAIAIAGACCIIAAAIFCAAAAICGIAACAGATAAGAAGGAICTIGGIGAIGG 2108 2339 TGTTCAGAAAAATTCAAAAGTGTTTTGATCAAAGAAGAGGAGTATGATTCTATTATAGT 2358 2169 ATTCTATAACTCGGTCTTCAIGCAGACTGAAAACAAATATTIIGCAGTAIGCTTCCAC 2228 2459 CAGGCCCCTACCTIGICACCAATACCICACATICCICGAAAGCCCTACAAGTICCTAG 2518 2349 AATTECAGAAGGTCTGCCAACAACAAAAATGACTCCCAAGATCAAGAATCTTAGTATT 240H 2639 AATTGGTGAATCATTCGGGACTTCTGAGAAGTTCCGGAAAAAAGGGGGATGGTATGTAA 2698 2469 PAGRGAPRITITGET PAAAAGAAGTGETGAAGGAAGCAAGCCTCCTAAAGGAAAGAGTGAAAAA 2528 2289 TTCACCCTTACGGATTCCTGGAGGGAACALCTATATTTCACCCTGGAGGGTCTALATAA 2348 2279 GAAGAATATAGACCTTAAATTCAAAATCATTGIAACAGATACATAGATACATAGC 1509 TITIATCAAAGCAGAAAGCAACTTGACAAGAAATGALAAAACATTIAGAACGATGTG 1569 ACARCGAARCAATGGGTTGCATGGCTCTCAGATTCACCTTTAFTTGATGTTAA 1629 ACAATCAAAGGACCGAAGAAGAACAAAGGACTGATCTTGAATCTGCTTGTCTTAATCT 1979 GAAAAAAGGTTCAACTAGGCGTGTAAATTCTACTGGAAATGCAGAGAGAAAAAACGTG 1809 AGCCIICCAGACCCAGAAGCCATTGAAAICIACCICCTIICACTGITITAIAAAAAGI 1869 GIATOGGITAGGITAGIO CAGAIAAAIA WITITGIGAACGOITOTGIGAGGACO 2399 ATTICTANACTICGLICTICALGCAGACTGAAACAAATALTTIGCAGTATGCTLGCAC 2099 - STATOSBETARE TARGET OF SET FAMALA "VETTEST SANGSCTPOTSECTSANGSCOS 1989 CATGAGAGAGAGATITGGACATAAATIAIGAIGIGIGIAGAAGAAAAAA 2219 CATGAGAGAGAGATTIGAGATTA IGATIGATIGATIGAGALA IGAGAAACA ò. £ QQ qq qq ó qq ŏλ ò ó ó .70 qq ò

```
2759 ACTANOCTITICALATICAAGGALAGAAGCAGAAGGAAGTAAAGATGTGCCAGGAGA 2818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2939 TOTAL CHITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      $189 TGAACTCTTCTGCAAAAGGALATTATTAGAAATTAGAAAAAAATTACTAATTTTACAC 3248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3249 ATTAGATTTTAFTTACTATGGAAEGLGAIAIAGEGEGGTGCTTGFFIJATAAAATFFFG 3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3369 AACAGATEGATACCECAGAAGTAAAAGAACTTACEGATTATTITGTEGATGCAAGTTA 3428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2589 GTCCAAATTICAGCAGAACTGGGAAAATGACTTCTACTGGAACACGAATGGAAAAGGA 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2819 GTGGAAATTTGAGGABAAACTGGGAGAAAIGACTTGTAGTGGAAGAGAGGAAIGGAAAAGGA 2878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2649 GAAAATGAA FGATAGGA FGGA FGGET 2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2709 TGGTGGACACTGTATAGGTCTGGATTGATTGTGTGTGTGACAGATGTGACTGTATAACTT 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2769 ICCCACACITICATIALISCOCACATITAATAICITCAGCICITITICICGATATAAAATG 2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2829 IGCAGALGCAATIGITIGGGIGCITGCIAAGCCACTIGAAATGTIAGIGALIGTTATTTA 2888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZBHY TACAAGATTGAAAATCTTGTGTAAATCCTGCCTGCCATTTAAAAAGTTGTAGCAGATTGTTCC 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1119 TACARGAT IGAAAATCI IGTGTGCTGCCATI TAAAAAGTTGTAGCACATTGTTTCC 3178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2949 FOLLOCAAAGLAAAALIGOLIGOLITALGGALAGIAAGAALGGGGGLAGAGIGGGAGTG 3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8009 CHQATAACCCAQQCCTGTCTGCTTACTTTGCTTTCTTTTGTACCCATATACGTCATGTTTG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3069 CTCTTGTTFITATTAATTTATATGTATATTTTTAATTTAACATGAACGCGTTAGAAA 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3129 ALGLOTOPPETATOTALOTEONAAATGCAATEGATEGACEGCCAPTCACCAAAATTATGC 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         34.19 IGBACLICTICLOCAAAAALGGATATTATTAGAAATTAGAAAAAATTACTAATTTTAGAG 3478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44.29 TGTITITAAATGAGGATTAITGATAGT 4455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3659 TGTTTTAAATGAGGALLATTGALAGI 3685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
```

```
PESULI 4
US 09 469 522 50
: Sequence 50, Application US/09469522
: Patent No. USA0020151461A1
: GENERAL INFORMATION:
```

```
69 ACCTGATTTTACTGCAT1A1G1CAGAAATTAAAGA1ACCAGATG1CAGAGAGAGAGT128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        129 TEGETTAACITISGGAGAAAGITICAICIGIGGAGTATIGGGAGGTAIAIAITCAAAA 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89 GAAAAAGGAACHGTGGGGGAATCTGTALTGTACACAGTGACTTAGAGAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              288 GAAAAAGGAACTGTGGGGGAATCTGTATCTTATTGCAGTTGACCTAGGTGATATGTC 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   309 ACTAAAAGAAATIGATACCAGTACCAAAGTIGATAATGCTATGTCAAGACIGTIGAAGAA 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          O; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           249 GITCACTITTACTGAGCTACAGAAAAAPALAGAAATCAGLGTCGALAAALLCTLTAACTL
              Hu, Shi Xue
Benedict, William F.
Zhou, Yunii
TITLE OF INVENTION: MODIFIED RETINGHIASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99.7%; Score 3443.8; DB 10; Length 4554; 99.9%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patentin Release #1.0, Version #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSE: Arnold, White A Durker
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: PC-DOS/MS 1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION: 7..2790
SEQUENCE DESCRIPTION: SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 22-Dec-1999 CLASSIFICATION: <Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMALION:
                                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 77210-4433
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGIH: 3554 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: 512/418-300
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 50;
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 3445; Conservative
                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
                                                                                                                                                                                                    CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                               SOFTWARE:
                                                                                                                                                                                                                       STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
```

:**.** 

4 2 4 2 2 9	7 2 7 8 8 3	946 900 946 946 110 110 110 111	114 1126 130 130 130 138 138 148 148 150 150
GTATCATCTATTCTTTTCACAAAATGGAAAGGACATGTGAACTTATATATTTTGTATGTA	TICATE CAGITA A GCTATIGG CONTINGENT TO THA A CONTINGACION OF CONTINGACION OF CONTINGACION OF CAAAAACACCOCTIGG CONTINGACION OF CAAAAACACCTG TATATA A CONTINGACION OF CAAAAACACTG TATATA A CONTINGACION OF CAAAAACACTG CAAAAACACTG CAAAAACACTG CAAAAACAAAAAAAAAA	TITTETTA ACCATACCACAATTTATCTTAAAATAAACATTTACAGAGAATTTATCTTAAAAATAAACATTTACAGAGAATTTATCTTAAAAATAAACAATTTACCAAGAATTTATCTTAAAAATAAAACATTTACCAAGAATTTATCTTAAAAATAAACATCTTAGATCTTAGAATTCTTAAAAATAAAAATTTATCTTAAAAATTAAAAAAA	ACCITCAGAAAATCIGATTTCCTATTTTAACAACTGCACAGIGAATCCAAAAAAAAAA
	8		5 2 5 2 5 2 5 2 5 2 5 2 5

```
2168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7977
                                               1509 TTTTATCAAAGCAGAAGCCAACTTGACAAGAGAAATGATAAAAACATTAGAAAGGATGTGA 1568
                                                                                                                                                                                                                                                                                                                                                                                 1749 GAAAAAAGGIICAACIACGIGIAAAII TACIGCAAAIGCAGAGACACAAGCACCIC 1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2049 GAAGAATATAGAAATTGAAAATGATTGTAAGAGGATACAAGGATGTTGGTGG 2108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2229 PAGGGGGGTTAGTGTGGGGATAGGTGAGATTTCCTCCAAAGGGGGTTAGAAGTTTCCTAG 2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2328 CAGGGGCCTAPCTESTACACAATACCGAAAGCCTACAAGTTCCTAG 2387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2388 TTCACCCTFACGATTGTTGGAGGGAACATCTATATTTCACCCCTGAACACGCCCATAFAA 2447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2448 AATTFOASARSTSTSTSASAACAACAAAAAATGACCOAAAGAAGAAGAAGAAGATGTTAGTATC 2507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2409 AATTGGTGAATTATTGGGAGTTTTTAGAAAATAGAAAATAAATGAGATGGTATGTAA 2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2568 CAGGACGGTGGTGAAAAAAAGAAGTGTGAAGGAAGCAAQCGGGCGAAAAQAAAAA 2627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2289 TICACCTTACGGATTCCTGGAGGGAACATCIAIATITCACCCCGGAAGAGTCCAIAIAA 2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2349 ANTERTAGABSTETGECARCACCAACAAAATGAGTGGAGATGAAGATGAAGAATGTTAGTATE 2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1548 CCCAIGGAICIGAAAGIGCTTAAIIIAAAAGCTIIGAITTTAAAAGIGALGAAAG
                                                                       1728 ACAATCAAASGACCGAAAAGGACTAACTAATCTGCTGTTAATCT
                                                                                                                                                                                                                                                                     2088 CATGAGAGAGAGATTTGGAGCAAATTATGATGTGTCCCATGTATGGCATATGCAAAGT
                                                                                                                                                                                                                                                 1689 TOCTOTOCAGAATAATCACACTGCAGCAGATATGTATCTTTCTCCTGTAAGATCTCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1668 ACARGGAARCALGGAARCCERTOALGGERETEAGATTCACCTTTALTTGACTTARTAA
                                                                                                                                                                                1629 ACARTGAARGA CGAGAAGAACAACATGATGAGGIIGAAIGIGGIIGTGGIGIIAAIGI
                                                                                                                                                                                                                                                                                                                                                                                                                    1908 AGCCTICCAGACCCAAAASCCATIGAAAICTACCICICITICACIGTTTALAAAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1989 CATGAGAGAGASSTATTGGAGGAATIATGATGIGITCCAIGIAGGCATGIGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2148 GAAGAATATAGACCTTAAATTCAAAATVATTGTAACAGATATACAAGATCTTCCTCATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1869 GYATGGGGTAGGGTAJIGTGGGGTAAATAGAGTTTGTGAAGGGGTTTGTGAAGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2169 ATTOTATAACTOGGTGTTGATGAGGAGGAGAAAAAAAAATAITITGGAGTATGGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      φ
                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ÓΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    년
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        김
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       οχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
```

```
29HB TATAAAAATTGAAAAAATGTGTAAAAAAGTGTGCCATTTAAAAAAGTTGTAGGAGATTGTGTTTTTTGT 3047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2949 TOTECGAAAGTAAAATTGGTGTGTSTTTATGGATAGTAAGAATGGGGGGTGTGGGAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8048 TCTPGCAAAGTAAAATTGGTGTGTGGUTTATGGAAAGTAAGAATGGCGCTAGAGTGGAGTC 3107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HITTH 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3309 CTTTTAATTAAATAAAAGCTGGAAAGCAATATAAAGCATATGATACTATCATACTACTGA 3358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     369 AACACATITCALACCISCAAGIAAAGAACHIACIGATTITCITCATCCAACTIA 3428
2528 ACTACOTITIOATALIGAAGGA GAGALGAAGAGAGAGTAGAAGTAAACATGGGAGGAG 2687
                                                                                                                                                   2589 GFCCAAATTCAGCAGAAACTGGCAGAAATGACTTCTACTGGAAGAGGAATGCAAAAGCA 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2868 FOOTAGETOTETHER OF CONTINUE TO THE FILL FOR THE STATES SEED TO THE FORMAL SEED TO THE SEED TO THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2829 TOTAGATOTAAT FIFFEGGIGAL FOTTAAGCCAO FIGAAATGIFFAGTCAFFGTTATITA 2888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2928 TGPAGATGCAATTGTTTGGGTGATTCCTAAGCCACTTGAAATGTTAGTCATTGTTATA 2987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2889 TACAAGATIGAAAATCITGIGIAAAATCCIGCCATITAAAAAGITGIAGCAGATTGITTGC 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1009 CITCATAACCCACCCITCTCTCACTTLGCCTTCTTTCTAGCATATAGGTGAFGFFG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1129 ATGTGTCTATCTATCTTCCAAATGCAATTTGATTGACTGGCCATTCACCAAAATTATGC 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            928 ATGIGIGICITATCIATCITGGAAATGGAATTGATTGAGGGGATTGAGGAAATTATGG 3287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1189 TGAACTCTTCTGGAAAAIGGATATTATTAGAAATTAGAAAAATTACAAAATTTCTACAAAATTTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3347 TGAACTCTTCTGCAAAAATGGGATALTATTAGAAATTAGAAAAATTACTAATTTTACAC 3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8249 ATTAGATITIATITIAGIAITGGAATGIGAIATAGIGIGGGGTGGTTGITITATAAAATTTIG 3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4408 CITTTAATTAAATAAAAGGGGAAAGTATAACGATATGATACTATGATACTACTGGTGA 3467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4488 AACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGATTATTTTCTTCATCAACTTA 3527
                                                                                                                                                                                                                                                                                              2688 GTCCAAAITTCAGCAGAAGTGGGAAAATGACTTCTACTGGAAGAGGAAIGCAAAAGGA 2747
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2649 GAAAATGAATGATAGCATACCTCAAACAAGAAGAAGAAATGAGATTCTCAGGACCT 2708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2709 TGGTGGACACTGTGTALAACCTCTGGATTCATGTCTCTCTAAAATGTGACTGTATAACTT 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2769 TCCCAGGTTCTGTTTATGGGGAGAGATTAATATCTTCAGCTCTTTTTGTGGATATAAAATG 2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: MODIFIED RETINGHLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      528 TGTTTTTTAAATGAGGATTALTGATAGT 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4429 TOTITITAAATGAGGAITAITGAIAGT 3455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shi - Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. USZ0020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08 09 469 522 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 40,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                          5
```

```
313 AAAGAAATTGATACCAGTACCAAAGTTGATAATGTATGTCAAGACTGTTGAAGAGTAT 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  373 GATGTATTGTTTGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTTATATATTTGAAA 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           433 CAACCCAGCAGIIGGAIALGIACIGAAAIAAALEGIGCATTGGTGGIAAAAGTTTGTTGG 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 493 ATCACATTTTTATTAGCTAAAGCCGAACTAFFAAATGGAAGATGAFFGCTATTTOA 552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    133 TTAACTTGGGAGAAAGTTTGATGTGTGGATGGAGTATTGGGAGATATTGAAAAGAAA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70 ITAACITGGGAAAAAATITCATCIGIGGAIGGAAITAISSSAGHIAIAAAIAAAAAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    253 ACTITIACTGAGGTACAGAAAAACATAGAAATGAGTGTCGATAAATTCTTTAACTTACTA 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              190 ACTITIACIGAGCIACAGAAAAACAIAGAAAICAGIGICOAIAAAITCIIIAACIIAACIIAA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10 GATTTACTGCATTAIGTCAGAAATTAAAGATAYCAGATCATGTCAGAGAGAGAGATTGG 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              193 AAGGAACTGTGGGGAATCTGTATCTTTATTGCAGCAGTTGACCTAGATGAGAFGTCGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97.9%, Score 4484, DB 10, Dength 492;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                      Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/469,522
FILING DATE, 22 Dec-1999
CLASSIFICATION: <Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 0;
                                                          ADDRESSEE: Arnold, White a Darkee STREET: P.O. Box 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE DESCRIPTION: SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Hibler, David W. REGISTRATION NUMHER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
                                                                                                                                                               ZIF: 77210-4433
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 3492 base pairs
PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: 512/418-300
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SHOUFINGE CHARACIERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                  NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .2628
                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 3383; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: CDS
                                                                                                         CllY: Houston
                                                                                                                                                      COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                                      SOF"TWARE:
                                                                                                                              STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
```

. O

48 61 54 57 60	AAAT 79 AAAT 72 AAAT 72 TGAA 85 TGAA 78 ATTA 91 ATTA 91 ATTA 94		36A 121 	AGGCTTTATTGGCGTGCTCTTGAGGTTGTAATG 1392
 40 ALCACATITITAL 53 ILICAGITATAGE 40 ITICAGITAAIGE 15 AAAGAACCAFATA 50 AAAGAACCAFATA 73 GGDAGAACAGAA 74 GGDAGAACAGAA 75 GGDAGAACAGAA	3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3			4 CITCTGAATGACAACAITTTTCAT  1 HIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI

```
1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2050 CAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAGGAGTATGATTGTATTATATTATTC 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2409
1510 CGAATCATGGAATCCCTTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTAAACAA 1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1990 AATATAGACCTTAAATTICAAAATCATTGTAAGAGGATGTTGGTGGTGGTGTT 2049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2233 CCCCCINCCINGLOCCAATACCICACALICCICGNAGCCCTTACAAGTITCCTAGTICA 2292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2470 CONTINUATATIONAGATICAGATIGAAGCAGATIGGAAGTAAAAATTCTCCCCAGGAGAGTCC 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2653 ATGAATGATAGCATGGATACCTGAAAGAAAGAAAAAAAATGAGGALGTGAGGAGCTGGGT 2712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2290 TCAGAAGGTCTGCCAACACCAACAAAAATGACTCCAAGATCAAGAATCTTAGTATCAAATT 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2473 GACCOTIGTGOTCAAAAGAAGTGCTGAAGGAAGCAACCTGAAAAACCACTGAAAAAAGTA 2532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2530 AAAT ITPAGGAAAGTGGGAGAAATGAGTTCTAGTGGAACACGAATGCAAAAGGAGAAA 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1633 TCAAAGGACCGAGAAGGACCAACTGATCAGCTTGAATCTGCTTGTCTTTAATCTTGC
                                                                                                                                                         1693 CTCCAGAATAATCACACTGCAGCAGATATGTATCTTTCTCCTGTAAGATCTCCCAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1933 THAGAACATATCATCTGCACCCTTTTCCAGCACACCTGCAGAATGAGTALGAACTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2053 AATATAGACCITAAATICAAAAICATIGIAACAGAIACAAGGATCTICCTCATGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2170 OCCCUTACCUTGUCACCAATACCUCACATECTCGACGCCTTACAAGTUTGGTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1690 AAAGGTTCAACTACGCGTGTAAATICTACTGCAAATGCAGAGAACAAGCAACCTGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1813 ITCCAGACCCAGAAGCCATTGAAATCTACCTCTTTTCACTGTTTTATAAAAAAGTGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1750 TECCAGACCCAGAAGCCAFFGAAATCTACCFCFFFFFACTGTTTTAFAAAAAGTGTAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1873 COGUNACOTANO COSTANDA TANDA TANDA TANDA CONTRACTA C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1993 AGAGACAGGAHTTGGACCAAATTATGATGTTGTTGTATGTATGTATGTGGATATGCAAAGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2113 CAGGAGACATTCAAAGGTGTTTTGATGAAAGAAGGAGTATGATTGTALFALFALFGLALFC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2173 TATTAACTIOGCIICTTOALOGAGAGAGTGAAAAAAAATATTTTGCAGTALGCI PYYAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2293 OCOTIFFACIOAPTOOFICIACIOAAAATIGAFITIGAGGGGTIGAAGAGTITAAAATI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2230 CCCTTAPGGGATTCTGGGAACGAACATCTAIAITTCHCCTGAAGAGTCCATAIAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2533 CONTINGATATIGAAGGATGAGATGAAGCAGATGGAAGTAAACATGTCTCCCAGGAGAGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2593 AAATTTCAGCAGAAACTGGCAGAAATGAGTTCTACTCGAACAGGAATGCAAAAGCAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΟY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ΟŸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
```

```
2714 GGACACTGTGTACACCTCTGATTCATTGTCTCTCACAGATGTGACTGTATAACTTTGCC 2772
                                                                                                                                                                                                                                                                                                                                                                               2774 AGGITCHGITIATGGCCACAITIAAIATCHCAGCICHTHHGIGGAIAIAAAAIGIGCA 2832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2710 AGGTTCTGTTTATGGCCACATTTAATATCTTCAGCTCTTTTTGTGGATATAAAATGTGCA 2769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2833 GARGCAALIGITLIGGGIGALICCIAAGGGACITGAAAIGTTAGIGALIGITATTAGA 2892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2894 AGATTGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCAGATGTTTCCTCTT 2952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       THE HELLER HELT HELLER HELLER HELLER HELLER HELLER HELLER HER HELLER HELLER HEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2954 CCAAAAGTAAAATTGCTGTGCTTTATGGATAATAAGAATGGCCCTAGAGTGGGGAGTCCTGA 3012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PITTELLE I TELLE I TEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  419.4 CTCTTCTGCAAAAAGGATAFTATTAGAAATTAGAAAAATTAGTAATTTTAGACATTA 3252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             130 CTCTTCTCCAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTACACATTA 3189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4253 GATTITATITIAGIATGGAATGTGATATAGGGGTGGTGTTGTTTATAAAA11TTGCTTT 3312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4313 FAATTAAATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACTACGAAAACA 3372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1250 TAATTAAATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATGATACTACGAAACA 3309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             437 CALLICATACCICAGAATGIAAAAAAACTIACIGATTALTIICITOATGGAACTTATGTT 3432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2950 TAA 3CAGGGTGTGTGACTACHTGGGTTGTTTTGTAGGATATAGGTGATGTTTGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40.7.3. TGTFTTTATTAATTTATATGTATATTTTTTAATTTAACATGAACACQCTTAGAAAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4133 GTGCTATCTATCTTGCAAATGCAATTTGATTGACTGCCCATTCACCAAAATTATGCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UTILE OF INVENTION: MODIFIED RELINOBLASIOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          44.4. FITAAATGAGGATAATTGATAGT 3455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4370 1111AAA1GAGGAIIAIIGAIAGI 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 32, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: P.O. BOX 4413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANI: Xu. Honq Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No. USZ0020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CILY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STALE: LX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
US 09 469 522 32
```

```
261 IGAGCIACAGAAAAACATAGAAAICAGTGICCATAAATTCITITAACITACITAAAAGAAAT 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  321 TGATACCAGTACCAAGTGATAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTGTTT 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   441 CAGITGGATATCHACHGAAAAAAAHTCHGCAHGGCTAAAAACTITCHGGATCACATT 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309 CAGTTGGATALTACTGAAATAAATTATGCATTGGTGTAAAAGTTTGTTGAAATTT 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          621 ATATAAAACAGCTGTTATACCCATTAATGGTTCACCTCGAACACCCAGGGGGAGGTCAGAA 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         681 CAGGAGTGCACGGATAGCAAAACAAGAAAATGATAATAAGAAA1IA11GAAGATG 121G, 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 429 AATGCTATGTCCTTGACTATTTTATAAACTCTCACCCATGTTGCTCAAAAAAC 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       489 ATATAAAACAGCTGTTATAGCCATTAATGGTTGACTTGAAAAAAGAGGGGAAATTAAAA 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 GGAGAAAGTIICAICIGIGGAIGGAGIAITGGGAGGIIAIAIICAAAAAGAAAAAAGGAACI 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95.9%; Score 4315; DB 10; Length 4424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                   SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Pred. No. c.
                                                                                                APPLICATION NUMBER: US/09/469,522 FILING DATE: 22-Dec-1999 CLASSIFICATION: *Unknown.
                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: UTXC:506
                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC DOS/MS-105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 7..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 32:
                                                                                                                                                                    APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                      ATTORNEY AGENT INFORMATION:
NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
            MEDIUM TYPE, Floppy disk
                                                                                                                                                                                                                                                                                                                                                             LENGTH: 3323 base pairs
                                                                                                                                                                                                                                                                                        TELEPHONE: 512/418 400
TELEFAX: 512/474-7577
                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 42:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                  nucleic acid
                                                                                                                                                     PRIOR APPLICATION DATA:
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 100.0
Matches 3315, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                    ToPoLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δō
•••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

;; G

Page 12

å 5 f

5

ź

출 항

S

5 ±

<u>...</u>

8 8 8

ć

£

壹 号

Ë

---

ŝ

중 중 중

S

```
2900
                                                                               1881 CHATCTCCGGCTAAATACACTTTGTGAACGCCTTCTGTGTGAGCACCCAGAATTAGAACA 1940
                                                                                                                                                                                                    1809 TATICALCHGGACCTITTICCAGCACACCCIGCAGAAIGAGTATGAACICALGAGAGAGAG 1868
                                                                                                                                                                                                                                                                                                                                                                                                       2180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2348
                                       1689 CCAGAAGCAIGGAAICIACCICICTIICACIGIIITAIAAAAAGIGIAICGGCIAGA 1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2241 CTHCHCACCAATACCTCACATICCTCGAAGCCCTTACAAGTTTCCTAGTTCACCTTACT 2369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2301 GATTCCTGGAGGAACATCTATATTTCACCCTGAAGAGTCCATATAAATTTCAGAAGG 2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTTAAATTCAAAATCATTGTAAGAGGATACAAGGATGTTGCTGATGTTGTTAGGAGAGT 2120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2661 TAGCATGGATACCTCAAACAAGGAGAAATGAGGATCTCAGGACCTTGGTGGACACG 2720
                                                                                                                                                               1749 CHANCICCECTAAATACACITITGIGAACECCTICIGICIGAGCACCCACAAIIAGAACA
                                                                                                                                                                                                                                                                                                                                                                1929 CCTTAAATFCAAAALCATTGFAACAGCATACAAGGATCTTCCTCATGCTGFTGAGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2181 GGTCFFCAFGCAGAGACTGAAAACAAATATTTTGCAGTAFGCFFFCACCAGGGGGGCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2169 GAPTOCHOGAGODAGAGTGFATTTCACCCCCGACACACCCCTATATATATACACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2361 PCPGCPAGAGGGAAAAAGGTGGAAGAPGAAGATGTTAGTATGAATGGGAALC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2289 ATTCGGGACTTCTGAGAAGTTCGAGAAATAAATCACATGCTATGTAACAGGGGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2541 TATTGAAGGATGAGATGAAGCAGATGGAAGTAAACATGCCAGGAGGAGTGGAAATTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2529 TAGGATGGATAGGIGAAAGAAAGAAGAAATGAGGATGIGAGGAGGITGGIGGAGAGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2689 TGTA/POTE/TGGATICALTOTE/TETEA/NATGTGA/GATATAA/U11000/NAGITCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2841 IGTITGGGTGATTGGTAAGGCAGTISAAAIGIIAGHGGTAATTTATAAAAAATTGAA
                                                                                                                                                                                                                                            2121 ATTCAAACGIGITTIGATCAAAGAAGAGGAGIATGATICIAITATAGIATTCIAINACIC
                                                                                                                                                                                                                                                                                                                                                                                                                                           1989 ATTCAAACGTGTTTTGATCAAAGAAGAGGGAGTATGATTCTATTATAGTALTCTATAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2229 TCTGCCAACAACAAAAATGACTGCAAGATCAAGAATGTTAGTATGAATTGGTGAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2409 IATTGAAGGATCAGAAGCAAGGGAAGTAAAGATGTGGGGAGGAGAGTGGAAATTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2721 TRPACACCTORGGATTCAFFIGTCTCACAGATGTGACTGTATACTTTCCCAGGTLCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2781 TTPATGGGGAGATTTAATATGTTGAGGTGTTTTTGFGGGATATAAAATGTGGGAAFGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2421 ATTCGGGACTTCTGAGAAGTTCCAGAAA1AAATCAGATGGTATGTAACAGAGGGT
                                                                                                                                                                                    2061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            j . 음
---.
                                       Ľ
                                                                                                                     00
                                                                                                                                                                                                                                                                                                                        δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                 ò
                                                                                                                                                               ò
                                                                                                                                                                                                                                            δŽ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
```

```
2901 AAFFELGIGIAAALGCEGFTAFAIIAAAAGFIGIAGGAGATEGFTGCFFTFCGAAAGFA 2960
                        2769 AATCTTGTGTAAATCCTGCYATITAAAAAGTTGTAGAAATTGTFGFFGFGCGCAAGTA 2828
                                                                                         2961 AAAFEGGTGTGTTTAFGGAFAGTAAGAATGGGGCGTAGAGTGGGAGTCCTGAFAACCCAG 3020
                                                                                                                                      2829 AAAFLGGTGTGTTTTALGGATAGTAAGAALGGGGGTAGAGTGGTGGTGGTGATAAGGGAG 2888
                                                                                                                                                                                        4021 GCTGTCTGACTACTTTGCCTTCTTTTGTAGGAIATAGGTGATGTTTGCTGTTGTTTTA 3080
                                                                                                                                                                                                                                   808] TIAATITATATGIAFATTITITIAATTIAACATGAACACCTTAGAAAAJGIGTGCTAFC 3140
                                                                                                                                                                                                                                                                                                           4141 TATCTTCCAAATGCAATTTGATTGACTGCCCATTCACGAAAATTATGTGAAGTTTGTG 3200
                                                                                                                                                                                                                                                                                                                                                                                                        3128 CORP. CAAAAATGGATATTATTAGAAATTAGAAAAAATTACTAATTTAGACATTAGATTTTAT 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       220 TELATIALIGGAA GEGALALACIGIGIGERITATAAAA EFIGGILILAATHAAA 3320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4129 TTTACTATTGGAATCTGATATAGTGTGTGTTTTTATAAAATTTTGCTTTTAAATTAAAA 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4421 TAAAAGGTGGAAGCAAAGTATAAACGATATGATACTATACTACTGAAACAGATTTCAT 3380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3189 TAAAAGCTGGAAGGATATAAGGATATGATACTAFGATAGTAGTGAAGAGAFTTGAT 3248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   381 ACCTCAGAATGTAAAAGAACTTACTGATTATTTTCATCAACTTATGTTATGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEP Arould, White & Durkon
SIREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: ODKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Benedict, William F.
Zhou, Yunti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 34, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILLING DATE: +Unknown>
ALLORNEY/AGENT INFORMALLON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Xu., Honq Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3441 AGGALLATIGALAGT 3455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         $409 AGGALTATTGATAGT 3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US 09 469 522 34
                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                          Ē
                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                       =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
```

```
799 CCILITALGAATICICIIGGACIIGIAACAICIAAIGGAITCCAGAGAITGAAAATCIT 858 HTHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  610 CCTTTIATGAATTCTCTGGACTTGIAACATCTAATGGACTTCCAGAGGTGAAAAATCTT 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         499 TITITATITAGCTAAAGGGGAAGTALTACAAATGGAAGALGATGTGGTGATTLCATTTCAG 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            559 TIAAIGCIAIGTCCTIGACTATITATIAAACTCTCACTCCCATGTTGCTCAAAGAA 618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     490 AACAGGAGTGCACGGATAGCAAAAACTAGAAAATGATACAAGAATTATTGAAGTFCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  859 TCTAAACGATACGAAAATTTATGTTAAAAATAAAGATTTAGATGTAAGATHALLTTG 918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          670 TCTAAACGATACGAAGTTTATCTTAAAAATAAAAGATCTAGATAAAAAATTTTTG 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 919 GATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAACACA 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                         199 CTGTGGGGAATCTGTATTTATTGCAGTAGTTGACTTAGATGAGATGTCGTTCACTTTT 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          259 ACTGAGCTACAGAAAAACATAGAAATCAGIGICCAIAAAATTCTITAACTTACTIAAAAAGAA 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70 ACTGAGCTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTFACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           319 ATTGATACCAGLACCAAAGIIGATAALOCIAIGICAAGAATGIIGAAGAAGIATGATGIA 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         439 AGCAGTTCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACA 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               619 CCATATAAAACGGGGTGTTATACCCATTAATGGTTCACCTCAAACACCAGGCGAGAGGGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                679. AAGAGGAGTOGAGGGATAGGAAAAAAAAAATGATAAAAATTATTATTAAGTTTTT 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.39 TGTAAAGAACATGAATGTAATATAGAGGTGAAAAATGTTTATTTCAAAAATFTTATA 798
                                                                                                                                                                                                                                                                                                                                                                                                                        sdp()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  310 ITITIATTAGGIAAAGGGGAAAGIATIAGAAAIGGAAGAIGAIGIGGIGAITTGAITTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                    Indeds at
                                                                                                                                                                                                                                                                                                                                                                        94.4%; Score 4257; DB 16; Length 4266;
100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Pred. m.
Live 0; Mismatches
               HEGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: 0TXC:506
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418+4000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ. ID NO: 34:
                                                                                                                                                                                                                                                                                         LOCATION: 7..2502
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                             LENGTH: 3266 base pairs
NAME: Hibler, David W.
                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                   TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 100.09
Matches 3257; Conservative
                                                                                                                                                                                                                              TOPOLOCY: Linear
                                                                                                                                                                                                                                                                      NAME/KEY: CDS
                                                                                                                                                                                                                                                FEATURE
                                                                                                                                                                                                                                                                                                                               US-09-469-522-34
                                                                                                                                                                                                                                                                                                                                                                            Duery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Οþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
```

ACC ANAGOCAL LONAR LONGEL COLLOCATION DE LA PARAGACIO DE PORTO DE CAGOCACAGA DE LA COLLOCACACAGA DE LA COLLOCACACAGA DE LA COLLOCACACAGA DE LA CAGOCACAGA DE LA CAGOCACAGA DE LA CAGOCACAGA DE CAGOCACAGA DE LA CAGOCACACAGA DE LA CAGOCACAGA DE LA CAGOCACAGA DE LA CAGOCACAGA DE LA CAGOCACACACACACACACACACACACACACACACACACA
--

Č	; ; ;	
ò	2020	GACCHTAAATTCAAAATCATTGTAACACATACAACGATCTTOCTCATCCTCTTTTTTTTTT
do	1870 (	SACCTINAATTCAAAATCATTGTAACAGCAIACAAGGAICIICCICAIGCTGITCAGGAG 1925
ογ	2119	ACTICAACGTGTTTCATCAAAAAAAGAAGAAGTATGATTCTATTATAATGTTTTATAAC 2178
ag	1930	ACATTORAGO GOTT TO A TOTAL A TOTAL CONTROLLE AND TOTAL CONTROLLE AND A TOTAL CONTROLLE AND A TOTAL CONTROLLE A
ογ	2179	PEGGFCTTCATGCAGAGAGTGAAACAAATATTITGCAGTAGCTTGCAGGGGCCCCT 2238
CP	1990	TOWARD TEACHS AND THE STATE TO THE STATE OF
Qy	2239 /	ACCTIGEOCACAAFACCTGACATTCCTGGAAGCCTTACAAGTTTGCTACTTGCTGCCTTA 2298
qq	2050	ACCTECTOACCAATACCTCACATTCCTCCAAAGCCCTTACAAGTTTCCTAGTTCACCCTTA_2109
ŝ	5566	
출	2110 (	PRGATIFICTIGGAGGGAACATCTATATTTGACCCCTGAAGAGTCCATATAAAATTICAGAA 2169
ς	2359 (	GGTCTGCCAACACCAACAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAA 2418
qq	2170 (	SGICIGOCAACACAACAAAAAIGACIOCAAGAICAAGAATCIIAGIAGIAIIGGIGAA 2229
ΟŊ	2419	TCATTCGGGACTTCTGAGAAGTTCCAGAAATAAATCAGATGGTATGTAACAGCGACCT 2478
QQ	22240	POATPOGGGAOTTPOFGAGATTPOPAGAAATAAATCAGATGGTATGTAACAGGGGCGGT2289
ŝ	2479	atgataaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
QQ	2290 (	STIGCTICAAAAGAAGTIGCTIGAAGGAAGGAAGCTICCTAAACCACTGAAAAAGTACGAAAAGTTIT 2349
Οy	2539 (	SATATTGAAGGATCAGATGAAGCAGAAGTAAACATCTCCCAGAGAGAG
qq	2350 (	ATATTGAAGGATCAGATGAAGGAGAGGAAGTAAAGTAAA
QY	2599 (	OAGCAGAAAMTIGGGAGAAATGACTTCTAMTCGAAAGGAATGGAAAAGGAAAAGGAAAAGTGGAAAATGAAT 2658
ā.	2410	PNERSTANDE DE LA RESERVICIO DE LA CONTROL DEL CONTROL DEL CONTROL DE LA CONTROL DE LA CONTROL DEL CONTROL DE LA CONTROL DEL CONTROL DE LA CONTROL DEL CONTROL DEL CONTROL DEL CONTROL DE LA CONTROL DE LA CONTROL DE LA CONTROL DEL CONTROL DE
.5 	2659	SATAGCALGGALACTICAAACAAGGAAAGAAATGAGGACCTCAGGACCTTGGTGGACAC 2718
	2470 (	PATRAGRATIGGATACCTICARACAAGGAAGAGAATIGAGGATICTICAGGACCTTGGTGGACAC 2529
ó	2719	POPGRACACTORSALICATEGETCTCCACACACACISTATAACH 0000AGGIIC 2778
qu	2530	TREGINARICICISSALICATEGECECECARARIGERACEGIATAACHTECCARGETE 2589
Οy	2779	TCTTIATGCCGCACATTAATATCTTCAGCICTTTITGGCATATAAAA1GTGCAGAGCA 2838
qC	2590	TEPTIATEGECRATITAATATCTICAGCTCTTTTGTEGATATAAAATGTGCAGATGA 2649
ò	2839	ATGTTGGGGGGGTTOTTAAONANTIGAAAIGIRAGICAITGIIAITIAIACAAAITG 2898
qo	2650 7	ATTGLITTGGGLGAFTGGLAAGGCACTTGAAATGTLAGTCATTGTTATTTATACAAGATTG_2759
ογ	2899 4	AAAAICIIGIGIAAAICCTGCCAIIIAAAAAGIIGIAGCAGAIIGIIIGIGGAAAA 2958
qq	2710 i	AAAAICTEGIGTAAATGCIGGCATTIAAAAAGTIGIAGGAGATGTITGTIGTIGGAAAG 2769
Ωy	5454	PAAAAPINGTICHGOOTTTAHGGATAQTAAGAATGGCCCTAGAGTGGGGGTCCTGATAACCC 4018
QQ	2770 3	TANANATIGETETETETETETETETETETETETETETETETETETE
Οy	3019 7	ABBOOLGFORGATAGETI GOCH COLLI GIAGATATAGGIAGA GIA I GOLCTIGITTI 3078
ą	2830 /	AGGGGTGTGTGAGTAGTTTTGGGGTTGTTTTGTAGGATATAGGTGATGTTTGGTGTTTTTT
ογ	079	TATTAATTTATATGTATTTTTAATTTAACATGAACACCCTTAGAAATGTGTCTA 4138
qd	890	TATTAATITTATATTITTTTAATTITAACAIGAACACCTITAGAAAATGIGICCTA 2949
δy	3139	ICTALCTICCAAALGCAALIIGALIGACIGCCCALICACCAAAALIAIGCIGAACTCIIC 3198

-

```
2950 FCTATCTTCSAAATGCAATTTGATTGACTGCCCATTCACCAAAATTATCCTGAACTCTTC 3009
                                                                   3199 TOMAAAATOMATTATTAMAAATTAGAAAAAATTACTAATTTTAMAAATTTAMAAATTTT 3258
                                                                                                                8010 TOWAAAAA GAATAITATTAGAAATTAGAAAAATTAGTAATTIGTAATTITAGATTIT 3069
                                                                                                                                                               3319 AATAAAAGCTGGAAGCAAAGTATAAGCAIATGATACTATGATACTAGTGAAAGAGTTTC 3378
                                                                                                                                                                                                                                                                                                                                                        3479 ATACCHCAGAATGTAAAAGAACHTACTGAFFATTTTCTTGATGCAACTTATCHTTTTAAA 3438
                                                                                                                                                                                                                                                                                                                                                                                                        3120 AFACCTCAGAATGTAAAASAACTTACTGAITATTTTCTTCAACTTATGTTTTTAAA 3249
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.46
CORRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: THM PC Compatible OPERALING SYSTEM: PC-1008/MS-D08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: 7...2697
SEUTENCE DESCRIPTION: SEQ ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Benedict, William F. Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: ZZ Dec-1999
TLASSIFICATION: + Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 40, Application 95/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 512/418-3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROLEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGIN: 4461 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: "Unknown> ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hibler, bayid W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMALTON FOR SECTION OF 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACLERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     44 33 TGAGGATTATTGALAGT 3455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4250 (CACCALLATIONIAG) 4266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ha, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ToProLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SECTENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No. USZÓÓZO151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: COS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIAIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US 09 469 522 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PESULT B
                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                               Š
                                                                                                                                                                                                                                                              5
```

```
969 GACAACACTACGAAAAAATAACCTTOATGAAGGTOAATGTAALTOTTOTATAATACTOT 1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       129 | HGGLIAACHIGGGAGAAGHILCALGIGGAIGGAGIAHGGGAGGTATATATAAAA | 188
                                                                                                                                                                                                                                                                                             189 GAAAAAGGAACIGIGGGGAATCIGIAICHIIATIG AS AGHISA CHAGAISAIGIC 248
                                                                                                                                                                                                                                                                                                                                 GICGACCIAGAIGAGAIGTC 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 375 GTAIGAIGIATIGITIGCACTCTICAGCAAATIGGAAAGGACAIGIGAACIIATAITTI 434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      429 GACACAACCAACCAGTTCCATATCTACTGAATAAATTCTGCATTGCTGCTAAAACTTTC 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           435 GACACAACCCASCAGIICGAIATTIACTGAAAIAAAIICTGGAITGGTGCTAAAAAGIITT 494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       549 TTCATTCAGTTAATGCTAATGTGTCTTGACTATTTATTAAACTCTCACTCTCCATGTT 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            609 GCTCAAAGAACCATALAAAACAGCTGTTATACACATTAATGGTTCACCTCGAACACAG 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 66.9 GOGAGGI CAGAACAGGA GCACAGGATAN TANAAAATAATAAAATTAT 728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           729 TGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAA 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  789 AAATTITATACCTTTTATGAATTCTTCTTGAAGTTGTAAGATCTAATGGACTTTCAGAGGT 848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        849 IGANAATCITICIAAAGGAATAGGAAGAAATITATCITAAAAATAAAAGAAGGAAGATGGAAG 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            855 TGAAAATGT FFCTAAAGGAFACGAAGAAATTTALGTTAAAAATAAAAAFCTAAALGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255 GITCACITITACIGMOCIACAMAAAAAAAIAAAAAICAGIGCAIAAAIICITITAACIT 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        555 TTCATTTCAGTTAATGCTATGTGTGTGAGTATITALIAAAGTGGAGTGGAGTT 614
                                      2: Indets 94; Caps
                                                                       168 ACCEGATITIACIGNATIANABANITAANGAIACCAGAICATGICAGAGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   249 GTTCACTTTTACTGAGCLACAGAAAAACALAGAAALCAGLG ALAAALLCITTAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                           309 ACTABABGAAATIGATACCAGTACCAAAGITGATAATGCIATGTCAAGACTGTGAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                489 TTGGATCACATTTTTATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGATCTGGTGAT
94.0%; Score 4247.8; DB 10; Length 4461; 97.2%; Pred, No. 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 3352; Conservative
                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
                                                                                                                                                                                                                                                        228 TTGGTTG----
Query Match
                                                                                                                                                õ
                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                 ć
                                                                                                                                                                                                                                                                                                                                G
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
```

048 054 108 114 168	1399 CATSANARA MARATH COARTANATH A CANTEGRIF A FOUND AND A CHILLIAN THE CANTENANA MARATH A CANTANANA MARATHA M	3 4 5 4 5
8 5 5	929 AGAATTAGAAGATACGIGGACCTITICAGGACROPOTGGAGABAGABACT 15 DIG HILLHILLHILLHILLHILLHILLHILLHILLHILLHIL	5 8
9.3	CBES CHAIGGGLAGCCIAICICGGGCTAAATAGAGTTGIGAAGGGCTTGGTGTGTGTGTGTGTGTTGTTTTTTTTTT	B 3
86	HUM AGOUT CAGACCCAGAACCCATICAA FILLETTITITITITITITITITITITITITITITITITIT	5 3
80	1749 GAAAAAAAGGIICAAC HILLHILLHILLHILL 1756 GAAAAAAGGIICAAC	\$ <del>-</del>
74	89 ICCICI 1-111-1 15 ICCICI	황윤
69	29 AFAATCAAAGGACGAGAAGGACCAACTGATCAGCTTGAATCTGCTTGTTCTCTC FELFELFELFILLITITITITITITITITITITITITITITITITITI	5 3
63.	AVATOGAATOATGGAATGGGTTGVATGGGTTGAGAATGAGGTTAATTGAATG 3-14114111111111111111111111111111111	5 2
56	9 11117A1	등 를
	2 6	항 중
44	CAGAAT 	\$ <u>\$</u>
38	2 4	5 2
33.2	9 POGACTAA DOGA 	5 3
26	09. 383APARAGITTTGTGGAAATTGGAFCACAGGATACAAACTTGGATTGGCTTG 	중 를
20	1149 TATACHGAAAGAGIGAAGGAFAYAGGAFACATCTTTAAAGAGAAATTTGCTAAAGCTGFF1 1111111111111111111111111111111111	50 G
14	ACCIICAGAAATCTGATTTG ACCIICAGAAAATCTGAITTG	3 3
088 094	1.29 ANTIAGGACTGTIATGAACACTATCCAACAATTAAATGATTTIAAATTCAGGAAGTGA   1.11	3 4

2289 ITCACCCITACGGATICCIGGAGGGAACAICTAIAITICACCCCIGAAGAGTCCATAIAA 2348 2349 AATTTCAGAAGGTCTGCCAACACACAAAAAIGAGTCCAAGATCAAGAATGTTAGIAIG 2408 2409 ANITOGIGANICALICGSOACTICIGAGAAGIICCAGAAAATAAAICAGAIGGIATGIAA 2468 2415 AAFPGGTGAATCATGGGGACTTGTGAGAGTTCAGAGAAAAAATGAGGTGGTGAA 2474 2469 PAGEGACEGEGETCANANGANGIGETGANGGANGCANGCANGCANACACACEGANAAA 2528 2589 GTCCANATTTCACCAGANACTGGCAGANATGACTTCTACTCGANGGACGANTGCAAAAGGA 2648 2709 PGGPGGACPGFGTACACCFCTGGATTCATTGFCTCTCACAGATGFGACFGTATACTT 2768 2845 TGCAGATGCATTGASCTGATTCCTAAGCCACTTGAAATGTTAGTGATTGTTATTA 2894 3009 CIGATAACCCAGGCCIGICIGACIACITIGCCIICIIIGIAACAIAIAAGGIGAIGIIG 3868 2649 GAAAATGAATGATAGCATGGATACCTCAAACAAGGAAGAAATGAGGATCTCAGGACT 2708 2769 TCCCAGGICCITITALGGCCACAITIAAIAICIICAGGICITITIGIGGAIAIAAAATG 2828 2775 TOCCAGGITOTOTOTATAGGGCACATITAATATOTECAGGTGTTTTTCTCCALAIAAAATC 2834 2889 TACAAGATIGAAAATCIIGIGIAAAIGCIGCCALLIAAAAAGTIGTAGCAGALIGILIGG 2948 2949 TCTICCAAAGIAAAAIIGCIGIGCIIITAIGGAIAGIAAGAAIGGCCCIAGAGIGGGAGIC 3008 3015 CTGATAACCCAGGCCIGTCTGACTTTGCCTTCTT1GTAGCATATAGGIGATGTTTG 3074 3075 CTCTTGTTTTTTTTATTTATGTATTTTTTTTTTAATTTAACACCCTTAGAAA 3134 3248 TGAACTCTTGCAAAATGGATATTATTAGAAATTAGAAAATTACAAAATTACTAATTTASAC 3248 2175 AITCTATAACTCGGTCTTCAIGCAGAGACTGAAAAAAAAAITTTGCAGIAIGCITCCAC 2355 AATTTGAGAAGGGGGGAACAACAACAACAAAAAAAGAACTGGAAGAGGAGAAGAAGGTAGGAAC 2529 APPARCTUTOAPATTAAGCATGAGATGAAGAAGAAGAAGAAGAAGATGTAAAA 2715 IGGTGGAGACTGTGTACACTTGGGAITCAIGGGGGGCGCACAGAIGTGACTGTAIAACTI 2895 TACAAGATIGAAAATCITGTGTAAAATCCIGGCATITAAAAAAGITGTGGAGAALAGIII 19 3129 AIGIGICHAFCIATCIICCAAAIGCAAHHGAHGACHGCCCAHHCACCAAAAHAAC qq 90 ô  $\circ_{Y}$ a ò qq ć qq q ŝ ó П οy q ò 6 Š Q C qq

```
1110 ATACAAACTTGGAGTTCGCTTGTATTACCGAGTAATGGAATCCATGCTTAAATCAGAAGA 1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            990 CAACTGCACAGTGAATCCAAAAGAAAGTATACTGAAAAGAGTGAAGATATAGGAFACAT 1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1182 CTTTAAAGAAAATTGCTAAAAGTGTGGGACAGGGTTGTGTGTCGAAATTGGATCACACG 1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1302 AGAACGAFTAFCCATTCAAAATTFTAGGAAMTTFFFGAATGAMAMATTTFFAFGTM 1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1002 GGTGAATGTAATTCCTCCACACTCCAGTAGGACTGIIALGAACACTAIGCAACAATT 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1062 AATGATGATTTAAATTGAGGAAGTGATGAAGGTTGAGAAAALGTGATTTGCTATTTTAA 1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1122 CAACTGCACAGTGAATGCAAAGAAAGTALIGAAAAGAGTGAAGGTATAGGATACATTELIHT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            870 GGTGAATGTAATTGGTGCACACACTGCAGTTAGAATTGTTATGAACTATATAAATA 929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             930 AATGATGATTTTAAATTGAGGAAGTGAACCTTCAGAAAALCTGATTTGCTATTTTAA 989
222 TOPACCACH GAPTAGAGAGAGACHTTAPHTHATHTHTHTHTHTHTHTHTHTHTHTHTHTHTH
                                                                                                                                                                 342 TAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTTTGCTTTGCACTAAATT 401
                                                                                                                                                                                                                                               402 GGAAAGGACATGTGAACTTATATATTTGACACAGACTAGTAGTTGGATATTACTGAAAT 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        582 TITITATI AAACI CICCACCI CCA GOII COAAGAACAA AAAAACAAG CI I ATAAA 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              450 ITITATIAAACICICACCICCAIGITGCICAAAGAACAIAIAAAACAGIGITAIACC 509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      702 ACAACTAGAAAATGATACAAGAATTATTGAAGITGTGTGTAAAGAACATGAATGTAATAT 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   762 AGATGAGGTGAAAAATGTTTAFTTGAAAATTTTATGGTTTTATGAATTGTGGACF 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       822 TGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATAGGAAAATTTA 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            882 TCTTAAAAATAAAGATGTAGATGGAAGATTAIIIIIGGALGALAAIAAAAGTGTLGAGAGAGAGAA
                                      282 AATCAGIGCCAIAAATTGITIAACIIAAGAAAAAAAAAIGALAGAAGAGAAAIIGA
                                                                                                     qq
                                                                                                                                                                                                                                                                                 90
                                                                                                                                                                                                                                                                                                                                                                                                                                              ನೆ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>a</u>
                                      a
                                                                                                                                                              ó
                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             G
∴
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
O
                                                       42°C: ATTACATTTAFTTTATATAGAATCTGATATAGGGTTGTTTATAAAATTTG 3314
                                                                                                                                                                                                                          4125 TGAACHCHICHGAAAAAAGGALAFIALIAGAAATTAGAAAAAAAAAHACHAATTTTAGAG 3254
                                      4249 AITAGATITIATITIAGIAITOGAATOIGAATATATAGIGGOTGOTTITIATAAAATITIG 3308
                                                                                                                  1309 CHILLAALLAAALAAAACHCAAACAAACTALAACCALALGALACTACTACTGA 3358
                                                                                                                                                          OTE CITITAATIAAATAAAAGCIGGAAGCAAAGTAIAAACATAIGAIACIATACTACIGA 3374
                                                                                                                                                                                                  3.469 AACAGATITCATAGCICAGAAAIGTAAAAGAACITACIGAITATITICILGAIGCAACITA 3428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Caps
                                                                                                                                         FITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 4226; DB 10; Length 3323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OPERALING SYSTEM: PY DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: UTXC:506
FELECOMMUNICALION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESTONDENCE ADDRESS:
ADDRESSEE: Armold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US, 209, 244 9, 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 7.,2559
SEQUENCE DESCRIPTION: SEC 1D NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 09/026,459 FILLING DATE: * Unknown.
                                                                                                                                                                                                                                                                                 44.29 IGITITIAAATGAGGATIAITGAIAGI 3455
                                                                                                                                                                                                                                                                                                                     44 45 TGTTTTTAAATGAGGATTATTGATAGT 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTOBNEY/AGENT INFOEMATION:
NAME: Hibber, David W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22 Dec 1999
CLASSIFICATION: *Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                      : Sequence 88. Application US/99469522
: Patent No. US29920[9]461Al
: GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  512/418 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NOT 38: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94,48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 99,8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      michele acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLECANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PoPoLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 4229; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77210 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Silv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHUNIEY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LELEPHONE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME / REY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US UP 469 522 48
                                                                                                                                                                                                                                                                                                                                                                                                   US 09 469 522 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unerry Materia
                                                                                                                                                                                                                                                                                                                                                                            PESULI 9
                                                                                                                                                      ã
                                                                                                                                                                                                  S
```

TELECHTELLETTELLETTELLETTELLETTELLETTELLETTELLETTETT	ALTOGOGICACHO POTUCATO AGGITO LA ALGOCOCACATATA COCAGA COTACAGOTO TOGOGA A 142 	GATTCTGGAACAGATTGTCTTTCCCAFGAATCTGAATGTGCTAATTTAAAAGC 140 	SATHITIACAAAGIGATGGAAAGITTTATCAAAGAGAGAAGGAATIGACAAGAGA 154 		TPADGITIATITIGAICITATIAAAQAAPCAAAGACCGAGAAGGCCAACTGAICA 166. FELLELLI HILLI AGAACGAGAAGAACAACAACTGAICA 152	FGAATCTGCTTGT FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	APPLICICCIDIAANAICICCAAAQAAAAAGTICAACFACGCGIGIAAATICFAC 1781 FIFTITILITITITITITITITITITITITITITITITIT	GOAGAGACATAAGAAACCTCAAGACTTCCAGAAGACAAAAGAAAG	IICTITICACTETTITATAAAAAAGTETATCEGIAGOCTATCTCOGGCTAAAIACACT 1901 	IGTCFGAGCACCAGAATTAGAACATATCATCHCGGACCCTTTCCA 196 FELLITTELLITTLITTLITTLITTLITTLITTLITTLITT	APPEDON TELLITI TELLITI	CCATGTATGGAATATGAAGGGAAGAATATAGACTTAAATTCAAAATCATTGT 208 	APPARACARANTECTORIGE CONTOCOGRACATIVA A CONTOCA TA A CONT	AGASGAGTATGATTGTATTATAGTATTGTATAAGTGGGTGTTGATGGAGAGAGGAG	NANTATTTIGGAGIATGGTIGGAG 	FICTORAGCCTTACAACTETTCCTAGTTCACCCTTACGGATTCCTGGAGGGAACATGTA 2321 	TTCACCCTGAAGAGTCCATAIAAAATTTCAGAAGGCTGCAACAACAACAAAAAT 2381 	Tecargateargatettagtateartiggtgaateattegggaettettgagagtt 2441
SAIT	1362   HIALFGGGG 	1422 TCTTGATTCT                             1290	CATIT	1542 AAIGAFAAAA 	1602 ASATICACCI TITLETER 1470 AGAILMACCI	1662 CCTFGAATCT (THITHIH) 1530 CCTFGAATCT	- $ H$	1782 IGCAAATGCA 	E = E	2 TTGTGAACG	1.952 - 30A0A0A00010 	2022 aTGTTCCATG 	A P	Zidz AGAAGAGGAGTA TILLITITITI Zulu AGAAGAGGAGIA	CAT	2262 ICCICGAAGC HILLIHHI 2130 ICCICGAAGC		
į.	병 원	Š Ž	6 ឪ	충 숲	9 B	ទី ដី	학 를	5 ₹	S ŝ	99 115	\$ £	š ŝ	ह त	á Ē	3 3	<u>\$</u>	÷ ≘	ŝ

2442 CCAGAAAATAAATCAGATGGTATGTAACAGGGAGGGTGTGCTCAAAAGAAGTGGTGAAGG 2531 2610 TCTCTCACAGAIGTGACTGTAIAACTI4CCCAGGGTCTGTI1AAGGCCACATI1AAAAA1C 2669 1867 3161 580+ 1281 3149 144 3269 2250 GACICCAASAICAAGAACHIAGIAICAAIIGGIGAALCAIIGGGGACHICLGAGAAGIT 2409 2562 ACATIOCAACTAAAQATOTOTOTOAGAAGTOSAAATTTGAGGAGAAAGTGGGGAGAAALGAY 2623 2862 AVIIGAAAIGIIASICAIIGIIAIIAIAAAAAAIGAAAAAICIIGAAAAICCIGGA 2921 2730 ACTITGAAATGTTAGTCATTGTTATTTATACAAGATTGAAAATCTTGTGAAATCCTGCTGCA 2789 2622 THCTACTICGAACACAAGAAAGGAGAAAATGAATGATAGCATGGATACGTCAAACAA 2681 2682 GGAAGAGAAATGAGGATGTGAGGACCIIGGIGGAGACIGIGIACAGGGGGTTGATIG 2742 TCTCTCACAGATGTGACTGTATAACTTTCCCAGGTTCTGTTTATGGCCACATTTAATATA 2502 AAGCAACTOTTAAACOATGAAAAAATIAGAITIGAIATGAAGGAFGGAAGGAAGGA 2370 AAGCAACCTCCTAAACCACTGAAAAACTTGATTTGATATTGAAGGATGAGAGGA 2802 ITCASCICTITITICIOGAIAIAAAAIGIGCAGAIGCAAIIGITIGIGIGAIIGCIAAGAA 3042 ICTITIGRAGCAIATAGGTGAIGITIGCCICTIGITITATAATITATATGTAITIT 2970 TTAATTTAACAFGAACACCTTASAAAATGTGCTAECTATCTGCAAAEGGAATTGA 2982 AGFAAGAATGGCCCFFACAGTGGGAGTGFFFGATAAGGGAGGGGGTGTGGTGCTGCTTTGGCT 3102 TTAATTTTAACATGAACACCTTTAGAAATGTGTCCTATCTTATCTTCCAAATGCAATTTGA 3162 TTGACTGCCCATTCACCAAAAIIAIGCIGAACICIICIGCAAAAAIGGAIAITAIIAGAA 3222 ATTAGAAAAAAATTACTAATTTTACACATTAGATTTTATTTTACTATTGGAATCTGATAT 3342 AACCATATGATACTATTGTACTGAAAGAGATTTGATACCTGAGAATGTAAAGAAGT 3210 AACCAFATGATACTAFCAFACTACTGAAACAGAFFFFCATACCFCAGAAFGFAAAGAACT 2922 TIMAAAAACIISTAGGAGATTGTTGGTGTTGGAAAGTAAAAIGGGGTTTALG3A: 2910 TCTTTFGTAGCAIATAGGIGATGTTTGCTCTTGTT FTATTAATTJAJAJGJAJAJI 3090 ATTAGAAAAAAATTACTAATTTTAGACATTAGATTTTTTAGTTTTTTAGAATTAGGAATCTGATAT 3282 ACTGTGTTGTTTTATAAATTTTGCTTTTAATTAAATGAAGCTGGAAGCAAGTAL 3150 ACTGTGCTTGTTTATAAAAIIITGCTTTTAAATAAAAACTGGAAAGAAA 3402 TACTGATTATTTTCTTCATCCAACTTATGTTTTTAAATGAGGATTATTCATAGT 4455 q ő QQ οğ 9

RESULT 10 US-09-469-522-3

```
g
                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                      q
                                                                                                                             ŝ
                                                                                                                                                            3
                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  484 GELLECTEGGALCAMATTITLAFTAGCTAAAGGGGAAGFAFTACAAAFGGAAGAFGALCTG 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             244 ALGICGLICACHTITACHTGACTACAGAAAACATAGAAATCAGTGTCCATAAATTTTT 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            304 AACTITACTAAAA\AAA LIGATACCAGTACCAAAGTIGAIAAFGCTA IG LCAAGACTGTIG 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             464 AAGAAGTATGAGATGITTGAACHTITCAGAAAATIGGAAAGGAGALGAACTTATA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     187 TATTTGACACAACCAGGAGTTGGATATCTACAAATAAATTGTGGATTGGTGGTAAAA 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  544 GTGATITGATITGAGI1AA1GGIATGIGFCCI1GAGIAH11FAHTAAAGHCHCAGCFCCC 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 ATGLCGTTCACTTTTACTGAGCTACAGAAAAACATAGAAATCAGTGCCATAAATTCTTT 66
                                                                                    Bernedict, William F.
Zhon, Youli
THILE OF INVENTION: MODIFIED RELINOBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.0%; Score 3212; DB 10; Length 3218;
100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                            ADDRESSEP: Arnold, White & Eurkee
SIREET: P.O. Box 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 41,071
REFERENCE/DOCKEL NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                            APPLIVATION NUMBER - TICKEG 446G, 522
                                                                                                                                                                                                                                                                                                   COMPUTER READANLE FORM:
MEDION TYPE: Floggy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOCATION: 7...2454
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22 Dec-1999
CLASSIFICATION: *Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
Sequence 3, Application 08/09469522
Patent No. 082002019461A1
GENERAL INFORMATION:
                                                                                                                                           PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              512/41B 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 4218 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       · Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: Simple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NOT 8: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IMPE: nucleic acid
                                                                                                                                                            NUMBER OF SEQUENCES: 51
                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                    APPLICANT: Xu, Hond Ji
                                                                       Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Popolosiy: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                 "ITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILLING DALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                    SIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME, FEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 3212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15 07 469 522 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
```

```
1324 TTTAGCAACTTCTGAATGCAACATTTTTCATATGTCTTTATTGGCGCCCTTTGTTGGC 1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1207 TCTTTCCCATGGATTCTGAATGTGCCTTAAAAGGCCTTTGATTTTAAAAGTGATC 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1144 GAAACHATACHGAAAAGAGTGAAGGATATAGGATACATCTTAAAGAAALTLOCTAAA 1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1204 OCTGLOGGAZAGSGITGTGTGTGAAATTGGATGA AGGGATACAAACTTGGAGTLOOTTG 126+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1264 TATTAPPGRASTAATGGAATGCATGGTTAAATGRAAGAAGGAGGTTATGPATTPAAAAT 1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1087 TITAGCAAACTICIGAAIGACAACAITITICATATGICITIATIGGCGIGGGGTGTIGAG 1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1384 GTTGTAATGGCCACATATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTG 1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1444 TCTTTCCCATGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTACAAAGTGATC 1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1564 TGTGAACATGGAATCATGGAAFCATTGCATGGTCTCTCACTTITALFTGATCTT 1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 964 ACACAGAAGAACACCAGGAAAAAGTTAATTGATGAAGAGGTGAATGTAATTFCCLOVAFAC 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1024 ACTCCAGTTAGGACTGTTATGAACACTATCCAACAATTAATGATGTTAAATTCAGCA 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1084 AGIGAICAACCIICAGAAAAICIGATIIICCIA111IAACAACIGGACAGAGAATGCAAAA 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                          784 TTCAAAAATTTATACTTTTATGAATTCTTGAACHGIAACATCTAATAGACTTCCA 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        844 GAGGTTGAAAATCTTTCTAAACGATAGGAAGAAATTTATCTTAAAAATAAAGATCTAGAT 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 904 GCAAGATTATTTTGGATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAA 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           847 AGTGATCAAGCTTCAGAAAATCTGATTTCCTATTTTAACAACTGGAGGGTGAATCCAAAA 906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            907 GAAAGTATACTGAAAAAGAGTGAAGGATATAGATACTTTAAAAGAAATITGATAAA 966
                                                                                             664 CCCAGGCSAGGTCAGAACAGGAGGCACGGATAGCAAACAACTAGAAAATGATACAAGA 724
                                                                                                                                                                                                                                                   724 ATTATISAASITCICIGIAAASAACAIGAAIGIAAIATATAGAIGAGGIGAAAAAIGITTAI 783
                                                                                                                                                                                                                                                                                                                                                                          547 TTCAAAAATTTTATACCTTTTATGAATTCTCTTGGACTTGTAACATCTAATGGACT 606
                                407 GTGATITGATITGASTTAATGCTAFGTGTCGTTGACTATITTATIAAACTCTFCACCTCCC 465
                                                                                                                                                      367 ATGTTGCTCAAAGAACCATATAAAACAGCTGTTA1ACCCATTAATGGTTCACCTCGAACA 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1027 TATTACCGAGTAATGGAATCCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAAT
```

```
1507 CCAAAGAAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAATGCAGAAGACAAAAGG 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HITTELLE HELLE HEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2044 AAAGTGAAGAATATAGACCTTAAATTCAAAATCATGTAACAGCATACAAGGATCTTCCT 2103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Z284 GCIADLE ACCOTTACGGA FOURGAGGAACATOTATATTECACCOCTGAGAGTOCA 2343
1387 ALLAAACAATCAAAGGACCGAGGAGCGAACTGATCACCTTGAATCTGCTTTGTCCTCTTT 1446
                                                                                                 1584 AADUTECTETECAGAATAATCACAGAGTGGAGATATGTATCTITCTECTGTAAGATCT 1743
                                                                                                                                                                                                                                                                                                   1744 PCAAAGAAAAAGGTTGAAGTAGGGGTGTAAATTCTACTGGAAATGCAGAGACACAAGGA 1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1804 ACCICAGCCTTCCAGACCCAGAAGCCATTGAAATCTACCTCTTTCACTGTTTTATAAA 1863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTICACIONICO CAGACCACAGAACCATICAATICIACCTCTCTTCACIGITTTATAAA 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1864 AAASTSTATSSSTAASSTATSTSSSSTAAATACASTTISISAASSSSTIGISISISAS 1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1924 CACCCAGAATTAGAACATATCATCTFGGACCCTTFTCCAGCACACCCTGCAGATGAGTAT 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1984 NAACITCALGAGAGAGAGATITGGAGCAAAIIATGAIGIGIICCALGIALGGGAIAIGC 2043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1807 AAAGTGAAGAATATAGACCTTAAATTCAAAATGATGTAACAGGATACAAGGATCTTGCT 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2) 04 CALGOTOTICAGGAGACAFICAAAGGTGTTTTGATGAAAGAAGAGGAGTATGATTT 2163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1862 CALGELETTENAGAGACATTENANCETETTTGATCAAAGAAGAGGGGGATTGTATT 1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2224 TOCACCAGGGGGGGTGGTGTGTCAATACGTCACATTGGTGGAAGGGGTTACAAGTTT 2283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2/47 CTASTICACCCTTACGGATTCCTGGAGGGAACATCTATAITICACCCTGAAGAGTCCA 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2344 TATAAAATTTCAGAAGGTCTGCCAACAACAAAAATGACTCCAAGATCAAGATCTTA 2403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24..4 GIAICAATIGGIGAATCATICGGGACTICIGAGAAGITCCAGAAAAAAAAATCAGAIGGIA 2463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2584 GUNUNGTOTANATITONGONGANAACTGGCAGAAATGACTTOTACTCCAACGAACGAATGCAA 2643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2704 GACCITGGIGGACACIGIGIACACCICIGGATICATIGICICICACACAGAIGIGACITAT 2763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3467 GACCI IGSTGGACACTGT81 ACAPTICTGGATPGPTFCPPTACACAATGTGACPGTAT 2525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2454 IGTAACAGCGGCGTGTGCCCAAAAGAAGTGCTGAAGGAAGCAACCTGCTFAAAGCACTG 2523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2-47 GGAGARTECEANTTECKORGKANTGGGGKGAAAFGKOTTFCTKGTCGACAKGKACKGGA 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2164 AIAGIATICIAIAACICGGTOTIOAIGAAAAAAAAAAAAIATITIGCAGTAIGCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ĩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             - III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          z_{jt}^{\alpha}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
```

```
3001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3423
                                                                                                                                                                2884 ATTINTACAAGATIGAAAATCIIGIGIAAATCCIGCCATITAAAAAGTIGTAGCAGATIG 2943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3303
2764 AACTTTCCAGGTTCTGTTTATGGCCACATTTAATGTTCAGCTCTTTTTGCGATATA 2824
                                       2527 AACTIICCCAGGIICIGIIIAIGGCCACAIIIAAIAICHCAGCICTHTHGTGGAIAIA 2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2824 AAATGTGGAGATGGGAGTGTTTGGGGAGTGGTAAGGGAGTTGAAATGTTAGTGATTGTT
                                                                                                                    2587 AAATGTGGAGAAGGAATTGTTTGGGTGATTGCTAAGCCACTTGAAATGTTAGTCATTGTT
                                                                                                                                                                                                          2647 ATTTATACAAGATTGAAAATCTTGTGAAATCCTGGCATTTAAAAAGTTGTAGGAGATTG
                                                                                                                                                                                                                                                 2944 TITTOTTOTTOTAAAGIAAAATTGGTGTTTATGGATAGTAACAATGGGGTTAGGG
                                                                                                                                                                                                                                                                       3004 GACHOCHGATAACCCAGGCCHGHCTGACTACTH COCH CTHTHCTACCATATACCTCAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3304 TTTTGCTTTTAATTAAATGAAGCTGGAAGCAAAGTATAACCATATGATACTATGATACT
                                                                                                                                                                                                                                                                                                                                                       3184 TATCCTGAAACTCTTCTGCAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3067 TITIGCTITIAAITAAATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATGATACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3364 ACHGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGATTATTOOT (CALCCA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2827 GEFFGEFFFFFFFFFFFFATATCTATAFFFFFFFAATTTAACATGAACACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORKESFONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET, F.O. Boa 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3424 ACTIATGTTTTAAATGAGGATTATTGATAGT 3455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Thoppy disk
COMPUTER: IHM PC: compatible
CHEATING SYSTEM: PC-TOGS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 993.000 26, Apriloation US/09469522
; Patent No. US20020151461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: USA
21F. 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-469-522-36
                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οy
```

```
589 AAACTCTCACCCCCALGTTGCTCAAAGAACSAATAAAAACACCTGTTATACCATTAAT 648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            889 ANTANARATOTAGATGGAAGALTATITIGGATGATAAAAGTGTTGAGAGTGATTGT 948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        547 AATAAAGATCTAGATGCAAGATTATTTTTGGATGATAAAACTCTTCAGACTGATTCT 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             449 ATCHCAAGACHGITGAAGAAGTATGATGTTTGGACHCTTGAGCAAATTGGAAAAG 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   409 APATGEGAAPETATATATGAGAAPPGAGAGETEGATATGTAGTGAAATAAATTGT 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    469 GCAFEGTEAAAAGTETTTTFGAAECATTTTTATTAGCTAAAGGGGAAGTATTACAA 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  247. AAACHCIOACCIOOA GIIGGIGAAGAACAAHAAAAGAGCIGIIATAAACAATIAAH 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      649 HGTTCANATEGAACCCAGGGGGGGGTCAGAGAGGGGGGGGGGGGATAGCAAACAACTA 708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            709 GAAAALGALACAAGTAATTATTGAAGTIGTGTAAAGAAGATGAATGTAATALAGATGAG 768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     769 GIGAAAAAIGIIIAIIIGAAAAAIHTTATACTTTITATGAATTGECTTGGACTTGTAAGA 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 427 GIGAAAAAFGITIAFTTGAAAAAIIFTALACCTTTTAFGAATTGFGFIGGACTTGTAACA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       829 TOTAATGGAGITCCAGAGGITGAAAATCITIGIAAAAGGATAGGAAGAAATTAICITAAA 888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HITTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7 ATGTCAAGACTGTTGAAGAAGTATGTATTGTTTGCACTGTTCAGGAAATTGGAAAAGG 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 10; Length 3113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indeis
SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          U; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 0;
                                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: UTXC:505
HELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89.9%; Score 4107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE DESCRIPTION: SEQ 10 NOT 35:
                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 41,071
                                                                                                        FILING DATE: 22 Dec 1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                               | TELEPHONE: 512/418 | 4000 | TELEFAX: 512/474 | 2977 | 1NFORMATION FOR SEQ ID NO: 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 4114 base pairs
                                                                                                                                                                                                                                                  FILLING GALE: **OLKBOOME>
ALFORNEY/AGENT INFORMATION**
NAME: HIDLER, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEUTENCE CHARACTERISTICS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ToPology: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 4107; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15 109 469 522 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CONTY Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          :~
>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
```

```
069 AFTITAAATICAGCAAGTGATGAAGGIICAGAAAAICIGATIICCIALIIIAAGAAACIGC 1128
                                                                                                                                                                                     1189 GAGAAATITGCIAAAGCIGIGGGACAGGGIGIGIGGGAAATIGGAICACACACAAAA 1248
                                                                                                                                                                                                                                                                                                                                       1309 TIATCCATTCAAAATTTTAGCAAACTTCTGAATGACAAAATTTTTCATATGTCTTTATTG 1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1369 GCGTGCGCTCTTGAGGTTGTAATGGCCACATATAGCAGAAGTACATCTCAGAATCTTGAT 1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1489 TITIACAAAGIGAICGAAAGIITIIAICAAAGCAGAAGA AAGIIGAGAAAAAAIGAIA 1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1549 AAACATTTAGAACGATGTGAACATCGAATCATGGAATCCCTTGCATGGATGCATCTCTA 1608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1609 CCTTFATTTGATCTTATTAAACAATCAAAGGACGAGAAAGAACTAALCALCAACTTGAA 1668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1267 CCTTTATTTGATCTTATTAAACAATCAAAGGACGGAGAAGGACCAACTGATCACCTTGAA 1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1729 TCTCCTGTAAGATCTCCAAAGAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAAT 1788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1789 GCAGAGACACAAGCAACTICAGGCTICCAGACCCATICAAATCIACCLTCTIT 1848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1447 GCAGAGACACAAGCAACCTCAGCCTTCCAGACCCAGAGCCATTGAAATCTACCTCTT 1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1849 TCACTGTTTTATAAAAAAGTGTATGGGCTAGCCTATCTCCGGCTAAATACACTTTGTGAA 1908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1507 ICACTGT111ATAAAAAAGTGTATCGGCTAGCCTATCT4CGGCTAAATAAATTTGTGAA 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1909 GGCCTTCTGTGTGTGAGGCCCCGGAAFTAGAAGAIATCAFCTGGACCCTTTTTCCAGCACACC 1968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1567 CGCCTTCTGTCTGACCACCACAATTAGAACATATCATCTGGACCTTTTTCCAGACACACT 1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2029 ATGIATGGCATATGCAAAGTGAAGAATATAGACCTTAAATTCAAAATGATTGTAACAGCA 2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1609 GTAATTCCT/CACACACTCCAATTM/GACEGIIALGAACACIALCAACAALTAATGATGATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   967 ITAICCATICAAAAITITAGCAAACITCIGAALGACAATILILICALALGISTITALIS 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1429 TCFGGAACAGATITGTCTTTCCCATGCATGCATGTCCTTAALLTAAAACCCTTAATTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1627 CTGCAGAATGAGTATGAACTCATGAGAGACAAGATTTGGACCAAATTATGALGTGTTCC 1686
                                                                                                                                                                                                                                                                                  607 ATAGACAGITITGAAACACAGAGAGACCACCAAAAAAATAAACTITGATGAAGAGTGAAT 666
                                                                        667 GTAATICCICCACACACICCAGIIAGGACICTIAIGAACACIATICCAACAATIAATGATG 726
                                                                                                                                               727 ATTITAAATICAGCAAGIGAICAACCIICAGAAAAICIGAIITCCIAITITAACAAAAGC 785
                                                                                                                                                                                                                                                                                                                                                       1969 CTGCAGAATGAGTATGAAGTCATGAGAGAGAGATTTGGAGGAATTATGALGTGATGTTG
                                                                                                                                    ŝ
                                                                        a
                                                                                                              ò
                                                                                                                                               â
                                                                                                                                                                                     ò
                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                               â
                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
```

```
7-49 (AAPATATAGGIGATGT) I GCICLIGITETATTAATTIATATGTATATTTTTAATTT 3108
11-15 | 11-15 | 11-11 | 11-11 | 11-11 | 11-11 | 11-11 | 11-11 | 11-11 | 11-11 | 11-11 | 11-11 | 11-11 | 11-11 |
2707 | IABCATATAGGIGATGTTTGCCCTIGTTTTATTAATTTATATGTATATTTTTTAATTTT 2766
2089 TACAAGGATCTTCCTCATGCTCTTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAG 2148
                                                                                                                                                                                                                                                                                                                                                1247 IACAASGATCTTCTCATGCTTCAGGACATTCAAACGTGTTTTGATCAAGAAGAGT 1806
                                                                                                                                                                                                                                                                   2149 GAGTATGATTCTTATAGTATTCTATACTCGGTCTTCATGCAGAGACTGAAAACAAAT 2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2209 ATTITGCAGTTCCACCAGGCCCCCTACCTTGTCACAATACCTCACATTCCTCGA 2268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2259 AGGGCTTACAAGTFTCCTAGFTCACCCTTACGGATTCCTGGAGGGAACATCTATFTCA 2328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1927 AGOSCHIACAAGTITOOTAGTICACCTITACGATITCTGGGGAACAICIATAITICA 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           # 42 y PORTIGAAGAG FCCATALAAATH FCAGAAGGTCFGCCAACAACAAAAAFGACTCCA | 2388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1987 OCCUBABARATIONALA PAAAAPITIONAAAGGIIGIIGGGAAGAGAAAAAAAAAAAAGAAAAAA 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.89 AGATGAAGAATGITAGTATGAATTGGTGAATTGGGAAGTTGTGAGAAGTTGGAAAAA 2448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2047 AGATCAAGAATOTTAGTAATGAATTGATGATTGATTGGGGAGTTGTGAGAAGTTTGAGAAA 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2509 COLCOTABARCACTGABABACTACCTTTGATATTGABGGATCAGATGABGCAGAGGA 2568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2167 OCTOCTABACCACTICABABARTARINITTICA TETATICA AGGATICA 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2629 OGAAGAGGA FICCAAAAGGAGAAATGAATGATAGGATGGATAFGTGAAAGAAGAAGAGGAAGAG 2688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24.) CAGATGIGACIGIAIAAAPTICCCAGGITCIGTITAIGGCCACATITAAIAICIICAGGT 2808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LHON COLLINGIOGALALAAAATGIGGAQATGGAATTGTTTGGGTGATTGCTAAGCCACTTGAA 2868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2929 AGTTGTAGCAGATTGTTTGCTGTTGCAAAGTAAAATTGCTGGTGGCTGGTGGGTAGTAGTAGAAA 2988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2989 ALCHOOLIAGARICAGARICORGATAAROOAGGOORGIIGIIGAGIAGTIIGGGOIIIGGIIIIGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2467 (HITHIGIGGALALAAAAIGIGGAAAHGAATHTHTTTGGGTGAITHTHTAAGPGATTGAA 2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2859 ALGELAGICALTGELETETETETACAAGETEGAAAAFGTEGTGAAATGCTGGTGATTFAAAA 2928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2569 AGTAAACATCTCCCAGGAGAGTCCAAATTTCAGCAGAAAGTGGCAGAAATGACTTCTACF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
```

```
3169 CCCATTCACCAAAATTATCCTGAACTCTTCTGCAAAAATGGATATTATTAGAAATTAGAA 3228
                                                 2827 CCCATICACCAAAATIAICCIGAACICIICIGCAAAAAIGGAIAITAIIAGAAAAIIAGAA 288A
                                                                                                                                                2887 AAAAATTACTAATTTTACACATTAGATTTTACTATTGGAATCTGATALACTGIGI 2946
                                                                                                                                                                                                 3289 GCTTGTTTATAAAATTTTGCTTTTAATAAAAAAAAGGAAGCAAAAGTATAACCATA 3348
                                                                                                                                                                                                                           3349 IGATACTATCATACTACTGAAACAGAITICATACCICAGAAIGTAAAAGAACIIACIGAI
                                                                                                                                                                                                                                                                                                                                               3007 TGATACTATCATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGAT
                                                                                               3229 AAAAATTACTAATTTTACACATTAGATTTTATTTTACTATTGGAATCTGATATACTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 3383;
                                                                                                                                                                                                                                                                                                                                                                                                                            3409 TATITICITCATCCAACTIATGITITAAAIGAGGAITATIGATAGT 3455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DGS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            138 10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Serre 3089.6,
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPERENCE/CYCCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER - HS/ABJ/469, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: 7..2619
SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09/026,459
FILING DATE: CORRESSED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 48, Application US/09469522
Patent No. US20020151461A1
CENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENGTH: 3383 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W. REGISTRATION NUMBER: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: P.O. Box 4433
CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94,98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DAFA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oudry Match
                                                                                                                                                                                                                                             QQ
```

ž	topics.	- 13	-
5 8	, 108	GPAGAPTAGAGGOOGGAAGAGOOLGOOLTOGAGAGTIGAGTITGAAGAAACAGAAAGAAGAGAGAGAGAGAGAGAGAGAGAG	7
7.0	69	ACTICATIFIACIOCATIAIGECAGAAFTAAAGATACAGAGATCATGEGAGAGAGAGC 128	30
	16,8	.7	27
\$ 2 5	129 228	FTGSTTANCITESGROAMACITTCATCISTGGAGGATATTGGGAGGIJAJACAAAA 188 {	8 7
<u> </u>	189 288		8 7
80	243	~ *	90
3 <u>3</u>	408	4	6.8 6.7
45 E	468	CTATGATGTATTGTTGGATTCTTGAAGAAATTGGAAAGGAGATGTGAACTTATATTT 4	8 7
5 3	423	GANACAAN CCAGNACTONATATOTACTGAAATTCTGCGCATTGCTGCTGAAAGTTTC 4 	8 7
5 £	483 588	TTGGATCACATTTTTATTACTAAAGGGAAGTATTACAAATGGAAGATGATCAGGTGAT 54 	8 7
5 ±	549 648	TTCATITCAGITAAIGGIAIGGGGCGIGAGIAITITATIAAGGGGGGGGGG	8 7
55 25	807 708	GCTCAAAGAACCATATAAAACACCTGTTATAGCCATTAATGCTTCACCTCGAACACCCAG 6 GCTCAAAGACCATATAAAACAG	, 08 30
<u> </u>	699	GCGAGGTCAGAACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATATAAATAT	œ
4	7 4.1	73	30
5 3	7.29	TGAAGITOTOTOTAAAGAACATSAATGTAATATAGATGAGAGAAAATGTTTATTICAA	ac ⊲
â	7.41		0
5 3	785	AAATITTALACHTITTALGAATETEETGGACTEGTAATGTAATGGACTEGCAGAGGT 84 LITTTELLITTETTTETTTTTTTTTTTTTTTTTTTTTTT	<b>ω</b> ω
55 55	843 777		as so
<u> </u>	404 8447	σ ∞	68 96
\$ 3	146.9	\$ = \$ 8 = 9	28 6
중 를	1029 957	ASTTASSACIATE TATANCANOATTAT CANOATTATATAT TATATATATATATATATA TATA TAT	088 016

```
18H
                                                                                                                                                                                                                                                                                                                                        1209 GGGACAGGGTTGTGTGGGAAATTGGATCACAGGATACAAACTTGGAGTTCGCTTGTATTA 1268
                                                                                                                                                           1137 GGGACACGCTTCTCTCTCTCAAATTGCATCACACAACAAAAAATTGCAATTATTA TT96
                                                                                                                                                                                                           1977 CCCATGGATTCTGAATGTGCTTAAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAG 1436
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITITATCAAAGCAGAAGGCAACTTGACAAGAGAATGATAAAAGATTTAGAACGATGTGGA 1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14.37 TEFFERAAGCAGAAGGCAACTTGACAAGAGAAIGAIAAAAACAIIIAGAAFGAIGIGA 1496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1629 ACAATCAAAGGACCGAGAAGGACGAAGTGA MAAGGTTGAA MIGTGTTGTTGTGTTGTAAMMT 1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1749 GAAAAAAAGGIICAACIAGGGIGIAAATICIACIGCAAAIGCAGAGACAAAAAAACAACTC 1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1089 TCAACCTICAGAAATCICATITOTTATTITAACAACTGGAATOTAAAAGAAG TIAH
                                                                                                                                                                                                                                                                                                                       1389 AATGGCCACAIATAGCAGAAGIACAICICAGAAIICIGGGAACAGAITIGICITIT 1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACATCGAATCATGGATCCCTTGCATGCTCTCAGATTCAGTTTALTTGATGTTATTAA 1556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1689 TCCTCTCAGAATAAJCACAGAGGGGAJAJCTAJCTIJCTGJGJAAGAJCJGVAAA 1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1737 AGCCITCCAGACCCAGAGCCATTGAAATCTACCTCTTTCACTGTTITATAAAAAAGT 1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1269 CCGAGTAAFGGAATCGATGCTTAAATCAGAAGAAGAAGATTATATAATLGAAAATLTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1617 TCCTCTCCGGATAATCACACTGCAGATATGTATCTTTCTCCTGTAAGATTCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1929 AGAATTAGAACATATCATCIGGACCIIIIOCAGCACOLGCAGAAAGAGAAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1917 CATGAGAGACAGGCATTIGGACCAAATIATGAIGTGTTGTATGTATGGAIAFGCAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2049 GAAGAHATAGACCITAAATICAAAATCATTGIAACAGCATACAAGGATCITCATCO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2109 TGTTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAGGAGTATGATTCTATTATAGT
                                                                             1569 ACATCGAATCATGGAATCCCTTGCATGGCTCTCAGATTCACCTTATTTGATCTTATTAA
                                                                1149 TATACTGAAAAGAGAGAFATAGGATACAFCTTTAAAGAGAAFFTGCTAAAGGTGT
                                                                                                                                                                                                                                                           1329 CAAACTICEGAATGACAACATTITECATATGICITALIAGCGIGCACTCTICAGGLICE
                                                                                                                                                                                                                                                                             1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1497
                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
                              q
                                                                ò
                                                                                          9
                                                                                                                              ŝ
                                                                                                                                                           <del>2</del>
                                                                                                                                                                                            5
                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
2517 GECAAATITCAGCAGAAACEGGCAGAAATGACTTCTACTCGAACAGAATGCAAAAGCA 2576
ZIES ALIPTALAMINGGUNTIGALGNAGAGGGGGGGAAAAAAAATTTTGCAGTATGCTTGCAG 2228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2229 CAGGCCCCTACCTTGTCACCAATACCTCACTTCCTCGAAGCCCTTACAAGFFFCCTAG 2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1187 CAGGOCOCTACCHIGIGERICACCAALACCIGAGAGGCHIACAAGHIGCIAG 2218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2289 ITCACCTTACGGATTCCTGGAGGGAACATGTATATTTCACCCTGAAGAGTCCATATAA 2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2449 AATTICAGAAGGTCTGCCAACAAAAATGAAGAAAGAAAGTTGAAGATGAAGATGTTAAGTATTT 2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2277 AATTICAAANAGICTGCCAAAAAAAAAAAAGATECAAGAICAAAGAATGTIAGIAH | 1111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2469 CAGECTAN CONTINUE TO THE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . 03. TANGGARAN TERMININ TERMININ TERMININ TERMININ TERMININ THE TERMININ T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FOR ACTAINMENT FOR FATE FOR A FOR A FOR A GO A GARAGO A GARAGO A GARAGO A CATA A CONTROL OF CONTROL OF A CATA A CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2457 ACTACOCTITGATATIGAAGGATCAGATGAAGCAGGAAGTAAACATCTCCCAGGAGA 2516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2º 89 GEGNAAATTECAGCAGAAACTGGCAGAAATGACTCTACTACTCGAACGCAATGCAAAAGCA 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2704 TÖRLÖGAÇAÇIĞIRLIAPARKITKIRGALIRATTGIRÇIZTGAÇAĞALIŞISAÇITGIATAARTIT 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2769 TOCARANTOTOTATIANGGCCACAINTAATAICTICAGCICININGIGGALANAAANG 2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2829 IGCAGATGCAATIGTIIGGGIGATICCTAAGCCACTIGAAATGTIAGTTATTATTA 2888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2889 JACAAGALIGAAAALCITGLGTAAALCCGGATTAAAAAGITGTAGGAGATTGTTCC 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2949 TOTTOCAAAGTAAAATTGGTGTGTTTATGGATAAGAAAGAAAGGGGGTGGAGTGGGAGTG 3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2-43 CLAIL HEILLEH HEILE STEELEN 2-43 CLAATAACCCAGGOOT FOTTGAP TAYTI 1500 HEILE HEILE HEILE STEELE STE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2.99 CICTIGITITIATIAATIIAIAIGTAIATITITITIAATITAACAIGAACCCTTAGAAA 3056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                *123 ATGIGTOTATCTATCTTCCAAATGCAATTTGATTGACTGCCATTCACAAATTATCC 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30009 CIGAIAACCCAGGCCTGTCTGACTACTTTGCCTTCTTTTGTAGCATATAGGTGATGTTTG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.69 CTCTTGLTTTFATTAATTTATATGTATATTTTTAAATTTTAACATGAACGCTTAGAAA 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3176 TGAACTCFTCTGCAAAATGGATATTATTAGAAATTAGAAAAAAATTACTAATTTTACAC 3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4249 ATTASALLTHATTTTACTALLGGAALCTGATATATGTTGTTGTTTGTTTTTAAAAATTTTG 3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          î
```

```
PHILLIPHITH PROCESSASSION ASSESSMENT PROCESSASSION ASSESSES
                                                       3309 CITITAAITAAATAAAAGCTGGAAGCAAAGIAIAACCAIAIGAIACIAICAIACIACIGA 3368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4, Indels 177; Gaps
3369 AACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGATTATTTTCTTCATCCAACTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: MODIFIED RELINGBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 10; Length 3477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: 18M PC compatible
SERVING SYSTEM, FC L.S, MS L.S
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89.0%; Score 3076.6; 94.7%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSER: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                             3429 TCTTTTTAAATGAGGATTATTGATAGT 3455
                                                                                                                                                                                                                                                    3357 TGTTTTTAAA1GAGGATTATFGAFAG1 3383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: «URKNOWN»
ATHORNEY/AGENI INFORMATION:
NAMM: HIBIET, DAVID W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                              Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILLING DATE: 22-Dec-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE, TOCKET NUMBERS (TELECOMMUNICATION: INFORMATION:
                                                                                                                                                                                                                                                                                                                                                  Sequence 46, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 3377 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 512,474 7577 INFORMATION FOR SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2613
                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANI: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                               Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 94.79
Matches 3266, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIF: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SECTIENCES:
                                                                                                                                                                                                                                                                                                                                                                  Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cliff: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                   HI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE:
                                                                                                                                                                                                                                                                                                                           US-09-469-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-09-469-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE
                                                                                                                                                                                                                                                                                                             RESULT 13
                                                                                                                                              / . 협
---
                                                                                                                                                                                                               ΟŸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
```

÷ ÷	7 89 1 89	A PERATTITACT GENETATIST CAGANATTANAGATACCEGIATICA TOT CAGAGAGAGAGC THE HELLER	128 227
5 G	129	TEGETAACTEGGAGAAAGTICATCIGEGAGGAGTTGGGAGGTTATTCAAAA 	188 287
75 155	183 288	GAAAAAGGAGGAGGAGGAAFFIGIAFCIIIAFIGCAGGACIIGACTAGAIGAGAGGAGTGIC 	248
35 G	249	OTECHITITACTOROCTROBANAACATABANAAATCAGTGTCCATAAATTCTTTAACTT 	308 407
75 125 126 127	\$ 0.4 4 0.8	ACTANANGANATTGATAC'NGTACCAANGTTGATAGATGCTATGTCAAGACTGTTGAAGAAAATTGATACTGTTGAAGAAATTGATACCAAGACTGTTGAAGAAAATTGAAAAAATTGAAAAAATTGATAATGCTATGTCAAGACTGTTGAAGAA	368 467
55 G	468	GTATSALCTATECTT TOTACTETT CAGCAAATTGGAAAGGACATGTGAAGTTATTTTTTTTT GTATGATGTATTTGCACTTATATATTTT GTATGATGTATGTGAAAAATGAAAAATGAAAAATGAAAAATGAAAAATGAAAAATGAAAAATGAAAAATGAAAAATGAAAAATGAAAAAA	428 527
5 E	4.219	429 GAPAPARENCAAPAGUATORATATCTACTGAAATAAATTCTGGATTGGTGCTAAAAGTTTC 488 	488
35	483	TTG-GATGAVALLITALIAGGAAAGAGGAAGIALIAGAAAGATGGATGTGGTGAT	548
47.	÷ 5.5		552
7.0	549	FICALLICAGITAATIGETATGLIGGETIGACTALITTATTAAAGTIGTGAGGTGCCATGTT	. 809
÷	553		552
5 G	\$03 \$23	GCTCAAAGAACCAIATAAAACAGTGTIALAACAATAAATGAATGAACTGGAACACCAGAGCCAGAACAACAACAACAACAACAACAAC	668 590
<u>}</u> 3	591	GOGAGGTCAGAACAGGGTGGGGGGATAGCAAACAAGGAAATTAT 	728 650
A 0.3	729	HGARGI POLOTGI AARGAACALGAALGI AATA LAGAGGGGGAAAAA TGI TITAP TITGA HTT HTT HTT HTT HTT HTT HTT HTT HTT HTT	788 710
\$ 2 2 2	789	AAATTTTATACCTTTATGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGT 	848 770
3 3	849	BIAAAATUTTOTAAANIATAOSAAGAAATTAACTTAAAAATAAAGATOTAGAGGGAGGETTETTETTOTTOTTAAAAATAAAGAATOTAGGAAGGAAAGAAAATTAACTTAAAAAATAAAGAAGGAAG	908 830
\$ <del>3</del>	909	ALIAITITTGGALCARGAVAAAACTCTTCAGCTGATTCTATAGACAGTTTTGAAACACACAC	958 890
\$ \frac{2}{5}	26.2	GAGAACACSACSAAAAASTAACCITGATGAAGAGGGGAATGTAATTCCTCCACACACTCC 	1028 950
5 3	1029 951	AGITARGACTGITATGAACACTATCCAACAATTAATGATGATTITAAATTCAGCAAGTGA 111   HELLELLELLELLELLELLELLELLELLELLELLELLELL	1088 1010
5 3	1089	France is abaratolical inclate is a confidencial describing and confidencial describing and the confidencial describing and th	1148

o :	Oy 1149	TATACTGAAAAGAGTGAAGGATATAGGATACATCTTAAAGAGAAATTTGCTAAAGCTGT 1200	<u>r</u>
=	-	=	Ç
0	120	GGGACAGGTTGTGTGGAAATTGGATGACAGGGATATAATTGGAGTTGGATGTTGTTATTA 1260	89
<u></u>	<u>.</u>	HATTA II	
o =	0y 1269 0b 1141	CCGAGTAATGGAATCCATGCTTAAATGAGAAGAAGAAGATTATCATTCAAAATTTTAG 1522 FEET HELFELFELFELFELFELFELFELFELFELFELFELFELFE	87
		1 110111	0 2
× =	125	CAAACTTC!GAATGACAACA!TTTCATATG!C!TTATGGCGGCG'C!GAGGTG!T3	÷ 00.
	Oy 1389	TEGALLCT GGAACAGALT LGTCT LITE	Σ.
	Db 1411		7.0
	Oy .1449	CCCATGGATTCTGATGTGCTTAATTTAAAAGGCTTTTGATTTTTAGAAATGATGATGATGATGA	80
Ω	Db 1371	CCCATGCATTCTCAATGTCATTTAATTTAAAACTTTTTTTT	Ş
<u>э</u>	15	-	568
	14.5	-	490
o £	Oy 1569 Db 1491	ACATCCAATCATGAATGCCTTGCATGGCTCTCAATTCACCTTTATTTA	8 2
	162		
· _	155	ACAATCAAAGGACCGAAAGGACGAACTGATCATTTTTTTT	01
	16	174	. 4
	-		7.0
<u> </u>	QY 1749	GAAAAAAGTTCAACTACGCGTGTAAATTCTACTGCAAATGCAGAGAGAG	80
Ω	Db 1671	GAAAAAAGGTTCAACTACGGGGGGTGTAAATGTAGTGGTGGAAATGCAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAA	30
<u> </u>	2y 1809	AGCCTTCCAGACACACATTGAAATCTACTTTCACTTCAC	868
	Db 1731	17	96
э 	186	GTATCGGCTAGCCTATCTCCGGCTAAATACACTTTGTGAACACCTTCTGTGTGAACACCC 19.2	875
<u> </u>	1971 du		850
···	192	AGAATTAGAACATATCATCTGGACCCTTTCCAGTACACCTGCAGAATGAGTATGAATT 1980	n E
	185	1,1	10
о 	198	CATGAGAGAGAGGGATTFGGACGAAATTATGATGTGCATGTATGGATATGAAAGT 204	ω <del>7</del>
	1161 <b>q</b> 0	147	7.0
Э 	014	GAAGAATATASACCITAAAITCAAAATCATGIAAWAGAAA AAGGA C100 1CADG 2108 1111111111111111111111111111111111	<del>9</del>
	Db 1971	GAAGAATATAGACCITAAATICAAAATCALICHAACACCATACAAGGATCTICCTCALGC 2030	=
<u> </u>		TCTTCAGGAGACTCAAACGTCTTTGATAAAAAAAGGATFATTATTATTATTATT 2168	89
	707	CALTCAAACGIGITITGAICAAAGAAGAGIATGAITGIATAGI 209	Ç.
<u>.</u>		~	87
==	Db 2091	CGGTCTTCATGCAGAGAGAAAAAAAATATTTTGCAGTATGCTTTCCAC 21	50
_	9222 ¥9	CAGGCCCCCTACCTTGTCACCAATACCTCACATTCCTCGAAGGGCTTACAAGTTTGCTAG 2288	X

```
2511 GECAAATIICAGCAGAAACTGGGGAGAAATGGGGTGTGGGGAACAACTGAAAAGGA 2570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           235 1GCAGALGTTGGGTGATTGTAATGTTAAATGTTGAAATGTTAGAATTGTTATTTA 2810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3009 CTGATAACCCAGGCCTGTCTGACTACTTTGCCTTCTTTGTAGCATATAGGTGATGTTTG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4.5) AIGIGIGGIALCIAFCIICCAAATGGAAIFTGAFTGAGGAIFFGAGGAAAAFFAFG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  *11 HAALEAAATAAAAGCEGGAAGCAAAGTATAACCATATGATACTATCATACTACTGA 3368
                                                                                                                                                                                  2289 IIGASCCITAGGATECTGGAGGGAACAICTAIAITEACCCCIGAAGAGICGAAAAAA 2348
                                                                                                                                                                                                                                                                                                     2211 TEGACCETTACGGAFFECTGGAGGGAACAFCTATATFFFCACCCCTGAAGAGTCCAFAFAA 2270
                                                                                                                                                                                                                                                                                                                                                                                                                        2349 AATTIPAGAAGGICTGGGGAAGAGGAAAATGAGTGGAAGATGAAGATGTAGTATG 2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2271 AATTIGAGAAGGICIGGCGAAGACCAAAAATGACTGCAAGAIGAAAATGIAGIAFC 2330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24.89 AATTGGTGAATGAFTGGGGAGTTGTGAGAAGTTTGCAGAAATAAATGAGATGGTATGTAA 2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2529 ACTACOCTIIGALAIIGAACGATGAGATGAGATGGAAGTAAACATGTGGCAGGAGA 2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2589 NICCARALITICAGPAGARACTIGGGARATIGACTTCTACTIGGARGAGGGAATGGAAAAGGA 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2709 ROGIGGACACHGRARACCTCHGGATHCAFFGTCHCACACAGAFGHGHGACHGHAAACTF 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2829 ISCASATSCAATTGTIIGGGIGAIGAITCCIAAGCCACTIGAAAIGIIAGICAIIGIIAIITA 2888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2889 - ACAAGATIGAAAAICIIGIGIAAATGCTGGGATTTAAAAAGTTGTAGCAGATTGTTTGC 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZHIL TACAAGATIGAAAAICTIGIGAAAAICCIGCCAITIAAAAAGIIGIAGCAGAITGITTGC 2870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2991 CTCTTGTTTTATTAATTTATGTATATTTTTTTTTAACATGAAGGCCCTTAGAAA 3050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (11) IGAACHOFICIGCAAAAATGGALALIAFTAGAAATTACAAAAAAAITACHAAFFFFACA 3170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1249 ALTAGALTITIATTTTACTATTGGAATCTGATATACTGTGGGTGGTTGTTTTAAAAATTTTG 3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24.9E 1779.AGSTLOTOLETHELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
```

```
3369 AACAGATIICALACCICAGAAIGIAAAAGAACIIACIGATIATIIICCIICAICCAACIIA 3428
                                                                  3231 CTTTTAATTAAATAAAGCTGGAAGCAAAGTTATAACCATATGATACTATGATACTACTGA 3250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69 ACCIDATITIACIONITATOFOASAANTAAAGAIACOAGAICATGICAGAGAGACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 10; Length 3347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM - PC-LOS/MS-DOS SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87.4%; Score 3019.8;
93.9%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER 115,709,7469, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismat Ches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE DESCRIPTION: SEQ ID NO: 42:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                3429 TGTTTTTAAATGAGGATTATTGATAGT 3455
                                                                                                                                                                          3351 TGTTTTAAAIGAGGATTATTGATAGT 3377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                              Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22 Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 3347 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      512,418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2583
                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                           Shi - Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
21P: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ongerrative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                               Sequence 42, Application us Patent No. US20020151461A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Hibler,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
Matcher 3238; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLLCC
                                                                                                                                                                                                                                                               US-09-469-522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-09-469-255-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                          RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ∑i
```

<i>L</i> ⊃ :	129	11 GEL FAZT RESTAGAAGEL FONTTOLGGA INGAGTATTOGGAGGTTA LTTGAAAA	188
÷.	H 77	TOGTIAAFTGGGAGAAAAGTTCAFCFGFGGAFGGAGTAFTGGGAGGTTATATTCAAAA	287
5 5	T 3	GAAAAAAGAAATGGGGGAAATGTATGTTATTGCAGGAGTGACCTAGATGAGTGC 	248
: 3	243	GTFGAVITTTACTGAGGTACAGAAAACATGGAAATGAGTGGCGATAAATTGTTAAGTT	308
÷	14.2		341
3	\$03	ANTAAAAQAATI DATAMAAQTAQCAAAGTI GATAATIGCTATGTGAAAGAA	368
ŧ	14.2		341
: · ·	693	GIAFGALGIALIGILLGCACHCITEAGCAAALIGGAAAGGACATGIGAACTTATATATTT	428
â	147		341
5	4.7.4	GAPACAAPOCAGPAGTTCGATATCTA TGAAATAAATTFCTGGATTGGTGAAAAAGTTTC	488
Ē	14.2	ATCIACTGAAATACTGCATGGTGCTAAAGTTC	380
5 3	48.4 2.8.4 1.8.4	TICKATCATATTILIALIASTIAAAGGGAAGTATTACAAATGGAAGATGATCTGGGAT 	548
		TASTAST TO THE TATE TO THE PROPERTY OF THE PRO	) (
<u> </u>	441	THE WELL AND USE AND USE OF THE WAS A THE WAS A TOTAL OF THE	608 500
∴	609	GITTAAAGAACATATAAAAACAGGTTATACCCATTAATGGTTCACCCGGAACACCCAG	668
4	5.01	GCFCAAGAACATATAAAAACAGCTGTTATACCATTAATGGTTCACGTCGAACACCAG	260
5 3	699 133	GCGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	728
-		OF OW FOLL MODAY REPART FOLD A FOOTING RAWLING MACHAGON OF THE STANDARD TO THE	070
5 3	6.21	HINTELLIANDAN AND AND AND AND AND AND AND AND AN	788
Š	789	AAALTIJAIACCITTIJAGAATCCTCTGTGGACTGGTACCACCTCTAATGGACTTCCAGAGGT	848
ž	681	AAATTITATACCTTTTATGAATTCTCTTGGAGTTGTAAGATCTAATGGGGCTTCCAGAGGT	740
5 3	741	HGAAAAFTIHCTAAAGGATGAGAAATHATCTTAAAAATAAAGATCTAGAGGGAG HTTHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI	800
> 2	6,03,	ALTATTITIGGATCATGATAAAACTGTTCAGACTGATTGTAGACAGGTTTTGAAACACA	968
=	£ 0	HERTHALITICA AND AND AND AND AND AND AND AND AND AN	860
à 3	969 861	969. GAGAACH CACAAAAAAAAAACTAACTIGAIGAAGAGAAIGIAAITCCICACACACHC 102 	1028 920
50	1029	ACTIVIDATE HATE AND ALTERATIONANTA FLAA EGATGATGATT HAAA FT PAGGAAGTA	1088
171	174	ANT TAGGECTETTATGAACACTATGCAACAATTAATGATGATTTTAAATTCAGCAAGTGA	980
5 3	1083 481	TCAACTTCAGAAAATCTGATTTCCTATTTTAACAACTGCACAGTGAATCCAAAAGAAAG	1148
46	1149	TATACTGAAAAAGATGAAAGATATAGGATACATCTTTAAAGAAAATTGGTAAAGGTGT	1208
3	1041	TATACHGAAAGAGAGAGAGAAGATAGATTAAAAGAGAAATTTGCTAAAGCTGT	1100
::	1.201	GEGACAGATAGEGEAA FI GGALGAAA BAGAAAACTT GGAAGTT GGAAGTTAGTAATTA	1268

qu	1101	OGCACAGOTTGTGTGTTTTTTTTTTTTTTTTTTTTTTTTT
ογ	1269	CCGAGTAATGGAATCCATGCTTAAATCAGAAGAACGATTATCCAAAATTTTAG
qu	1161	CCGGGTEATHCH THE THE THE THE THE THE THE THE THE TH
Oy Dh	1329	329 CAAACHCHGAARGACAACATHTICATARGTCHHAITGCGGGCGCTCHGAGHEN 1488 201 CAAACHTCHGAACACAACATHTICHTHILITHILITHILITHILITHILITHILITHIL
3 :	1 000	CHURCH EXTORNACION CONTRACTOR LETTERNO CONTRACTOR CONTR
à a	1281	Anoscasa ana ascasa ana mana mana mana mana mana mana ma
ογ	1449	CCCATGGATTCTGAATGTG/TTAATTTAAAAG/CTTTGATTTTAAAAGTGGAAAG
qo	1 44 1	CCCATGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGGAAGA
. Оу	1509	TITIT ATCAAAQAAQAAAGTTGACATGAGAAAGATGATATATAAAAAGATGTGA
qq	1401	TTTTALCAAAGCAGAAGTTGACAAGAAAAAAAAAAAAAAA
oy.	1569	ACATGGAATCATGGAATCCTTGCATGGCTCTCACATTCACTTTATTAA
वित <u>।</u>	1461	ACAT GGAAT CATGGAAT GCCTTGGAT GGCTCTGAGATTGAGGTTTATTT TATTTATTATTAA
, Oy	1629	ACAATCAAAGGAGGAGAAGGACAACTGATCACTTGAATCTGCTTTAATCT
<b>q</b> a	1521	ACANTCAAAGGAGGGAGAAGGACCAACTGATCAGCTTGAATCTGTTGTTTAATCT
δŏ	1689	TCCTCTCCAGAATAATCACACCAGCAGATATGTATCTTCTCCTGTAAAATCTCAAAA 
qq	1581	TCCTCTCCAGAATAATCACAGCAGCAGAAATATGTATCTTTCTCCTGTAAGATCTCCAAA
ОУ	1749	GAAAAAAGG ICAACIACGGIG AAA IICIACI OCAAA IGCAAAGACACAAAA AAAAAA CAAAAAAAAAAA
qn	1641	GAAAAAAGGITCAACTACGCGTGTAAATTCTACTGCAAATGCAGAGACACACAAAACCTC
Ογ	1809	AGCTTCCAGACCCAGAAGCATICAAAICIACTCFCIIICACIGTTTAIAAAAAAGT
q	1701	AGCCLTCCAGACCCAGAAGCAATGAAATCLACTTTCACTGLLLLALAAAAAGL
Oy	1869	GIA POGGIACCIA ICTORGO I ANATACAT LI GLOANOCICH LI CHELLANGACIC
qq	1761	GTATCGGCTAGCCTATCTCCGGCTAAATACACTTTGTGAACGCTTCTGTGTGAGCACG
OY	1929	AGAATTRAGAAGATATGATGLOGACOTTTLOCAGGAGAGAGAGAGAGAATTATTTTTTTTTTTTTTTTTT
qu	1821	AGABITI AGAACATA ICA LOTOGAGO COTTI LOCAGO ACACACO DI GOAGA LOTOGAGO LA LOTAGA CACACACACACACACACACACACACACACACACACA
δ	1989	CATGAGAGAGAGATTGGAACAAATTATGATG1G11CAAGATGGAGAAAGT
qu	1881	CATGAGAGAGGCALL LGGAGCAAATTALGALGTGTTCALGTATGTGCATATGTAAATT
Oy	2049	GARGATATAGACCTTAAATTCAAAATCATTGTAACAGATACATAC
qq	1941	GAAGAATATAGAGCTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGC
Oy	2109	TGT POAGGAGOT I CAAACGIGT ITTGA LOAAGAAGAGGAGTA GATIOLA LATAGI
q	2001	IGTTCAGGAGALICAAACGIGII FI GALGAAGAAGAGGGATGTATTATTATT
ò	2169	ATTCTATAA TGGGTCTTCA TGGGGAGACTGAAAA YAAAA TTTTTGGAGGTGGAGTTCOO
qo	2061	ATTCTATAA LCGGTCTTCATGCAGAGACTGAAAATAAATTTTGAATAALATTTGAA
ට් සි	2229	CAGGGGGGTAPOTTS FOR YAATAO FLYN TYD AAN YN YL IAN AAN HAN TAGAGGGGGGTAPOTTS AAN TAGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
*6	3000	A COMMUNICATION OF A CONTRACT
Š.	6977	TRACCERACIONED REASONAMENTALINE TRACCERACIONAL ATALANTAL AND ALGORITH AND A STATE AND A ST

```
FEATURE
                                                                                                                                                                                                              US-09-469-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-469-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 2834;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                  δ
                                                                                          Q
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2241 AATTITCHGAGGTCIGGGGAAGACGAAAATGAGIGGAAGAAGATGAAGATGAAGATGTTAGIAIC 2300
                                                                                                                                                                                                           2301 AATTGGGGAATCATTGGGGGGGGGGTGGTGGGGGAAAATGAGAAAATGGGATGGTAGGAA 2369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (T)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2381 11GACCCCGAGAITCCICGAGGAACAICTAIAITICACCCCTGAAGAGICCAFAA 2240
                                                        2349 AATTTCAGAAGGTCTGCCAACAACAAAAATGACTCCAAGAATCAAGAATCTTAGTATC 2408
                                                                                                                                                                                                                                                                                               2469 CAGNOACHOTOTOTOTAAAAAAAGTOOTOAAAGGAAGGAACOTGCTAAAACAACTAAAAAA 2528
                                                                                                                                                                                                                                                                                                                                                       2421 ANTACCOTTOATATIGAAGGAICAGATGAAGGAAGGAAGTAAACATCTCCCAGGAGA 2480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2649 HAAAATGAATGATGAGATGGTGAAACAAGGAAGAAAATGAGGATGTGAGGACGT 2708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27/9 FOCCAGGLICTGTFTATGGCCACATTFAATATCTTCAGGTCTTTTTGTGATATAAAATG 2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300 0 TOTISTITITATIAATITATATGIAIATITITTIAAATITAACATGAACACCCTTAGAAA 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   308) IGAACTCTTCTGCAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTACAG 3140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3141 ATTAGATTTTATTTTACTATTGGGAATCIGATATACTGTGTGTGTTTTTATAAAATTTTG 3200
                                                                                                                                                                               2409 AATIGGIGAATCALTGGGGACTTCTGAGAAGTTCCAGAAATAAATGAGATGGTATGTAA 2468
                                                                                                                                                                                                                                                                                                                                                                                                                   2529 ANTANGTITIGATATIGAAGGAICAGATGAAATGAAAGIAGAAAGIAAAAGTAAACAICCCAAGGAGA 2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2588-01CCAAA1TTCAGCAGAAC1GGCAGAAATGACTTCTACTCGAACACAAATGCAAAAGGA 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27 09 TGGTGGACACTGTGTGTACACTCTGGAATTCATTGTCTCTCACAGATGTGACTGTATAACTT 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2661 ICCCASULICIGITIAIGGCCACATITAALGIICGACAGTITIGGGGATAIAAAAIG 2720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2829 TGCAGATGCAATTGTTTGGGATGATTGCTAAGGCACTTGAAATGTTAGTCATTGTTATTTA 2888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2889 IACAASATESAAAAAFCTESISAAAATOOTSPOOTATAAAAAASETGTAGAAAAAATESTESO 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2-44 - ESTICTAAAGIAAAAFTGCIGIGGEFFFAGAAAGTAAGAATGGGCCTAGAGTGGGAGTC ROOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     * --- TGATAANGGAGGGGGTGTCTGACTTTGCCTTCTTTGTAGCATATAGGGGGTTTG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2961 FICTTGTTTTATTAATTTATATGTATGTTTTTTAATTTAACATGAACACCTTAGAAA 3020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3124 AIGIGICCIAICIAICIACCAAAIGCAAITGATTGACTGCCCATTGACGCAAATTATGC 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2781 TACAAGATTGAAAATOTTGTGTAAAATGGGGATTIAAAAAGIGGIAGAGAATTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3201 "TITITAATTAAATAAAAGTGGAAGCAAAGTATAAACCATATGATATTATGATACTACTGA
```

```
671 GAGGICAGAACAGGAGIGCACGGAIAGCAAAACAACIAGAAAAIGAIACAAGAIIAIIG 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       791 AFFTTATACCTTFFFATGAATTCTCTTGGACTTGTAACAFCTAATGGAGTTCCAGAGGTLG 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        611 FGAAAGAAGGAFAFAAAAGAGGGGGTTATATAGGGATTAATGGTFGACTGGAACAGGCAGGC 670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     317 TTATIGOAGCAGTIGACCTACCTGIIAIACCCATIAAIGGIICACCTCGAACACCCAGGC 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             731 AAGTECTGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAA 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             437 AAGITCICIGIAAAGAACAIGAAIGIAAIAIAGAIGIGAAGAAAAIGITIAIITUAAAA 49A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                       Henedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 3161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81.8%; Score 2827.4,
99.6%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GERALING SYSTEM: ECLES, MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 7..2397
SEQUENCE DESCRIPTION: SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 09/026,459
                          COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
PEFEPENTE, TYNKET NUMBER: III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                          Sequence 44, Application US/09469522
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
3429 TOTTPTTAAATGAGGALTAFTGATAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGIH: 3161 base pairs
                                                                                                                                                                                                                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: -UNKEGWE, AFTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: P.O. BOX 4433 CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                  shi - xuc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CONSORVALIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
21P: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME
```

V 4	ALTIFILLELE LE CHELLE LE LE LEGACE LE SEGUE LE
IALTITIGGAL	CALGALAAAACTCTICAGACTGATICTATAGACATTTIGAAACAGA 97 
CAACACC TITITE CAACACC	OAAPAPOAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
TTAGGAC 	TUTTATGAACACTATCCAACAATTAATGATGATTTTAAATTCAGGAAGTGATC 1090 
AACCT FC	AAPOTIPAGAAAATELBATIPPOTATITTAACAAPIGGACAGIGAATEGAAAGAAAGIA 1150 FIFELIA TEPULLITITTE OLITITTAACAAPIGCAAGAAAGAAAGAA 856 AAPOTICABAAAA BETGATITECTATITTAACAAPIGCAAGAAAGAAAGAAAGAA 856
ATTGA                 ACTGA	TATEGAAAAGAGEEGAGATATAGGATACATTEAAAGAGAAATEGGTAAAGCTGTGG 1210 TEEFFEELEETETETETETETETETETETETETETETETE
GACAGG	GAZARGETTGTGTGTAAATTGGATCACAGGATACAAACTTGGAGTTGGCTTGTATTACC 1270 FELLER FELLER
GACTAA 	GACHAA FOGAATCCA IGCT FAAA CAGAAGAACAACATTATCCATTCAAAATTTTAGCA 1330 
AAC 116 4 - 1 - 1 - 1 AAC 116	AACHTCHGAALGACAACATH HEATAIGICHTIA HIGGGGGGCICHGAGGTIGTAA 1390 TITTH HITTH HITTH HITTH HITTH HITTH HITTH HITTH HITTH HITTH AACHTCHGAALGACAACATH HEATAIGTCHTTATHGCGTGGCGLCHGAGGTTGTAA 1096
	FORCEANAIATAIA CAGAANIA ANGEGAAANICI FOATICIOGAACOAN HOEGHTIOC 1450 FELLETELLE ELECTELLE ELECTELLE ELECTE ANGE ANGEACAGA ELECTECC 1156 BOSCHACATALANCAGAAGLANGA COGAAA ECELOATICIOGAACAGA ELIGECTICC 1156
7A1987 11111 7A1987	151
A - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	TTA P PAAAG PARANG PAPTI CACAADADAA IGA FAAAPATTI RIFAAGA HIGAAG 1570 FELLI FELLI FE FEAFTAAAG PAAAG PAATI GACAAGABAA IGATAAAAGA ITTADAAGATG FGAAG 1276
AFGGA AFGGA AFGGA	163
AATC'AA 	AAODACCOAGAAAODACCAACTGALCACCHIGAALCTOCTTGTGCTGTTATGTTG-1690 FELLETETETETETETETETETETETETETETETETETET
	OTTO PASAATAA PAPACTO PASCAGATA GIATCITICI CITCIAAGATCI CCAAAGA 1750 ELECTI LITTI CO CICE OPASAALAA PAPACTO PAGCAGATA GIATCI LITTI CICCIAAGATCI CCAAAGA 1456
AAAAAA  AAAAA	181
	POTTOCAGAPOCAPAAOPATIGAATICIACOTOTOTOTOTOTOTOTOTOTAAAAAGIGT 1870 FILLITITITITITITITITI OUTFOCAGAGAAGGALIGAAAICIAGGEGITICACIGITITAAAAAAAGIGT 1576
A10300	A POSICIA ARCHARACIA AND AND AND AND AND AND AND AND AND AN

```
1991 IGAGAGACAGGATHGGACCAAATTATGATGTCAAGTATGTATGTATATGAAATGA 2050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1931 AATTASAACATATCALCTGGACCCTTTTCCAGCACACCAGGAGAAGGAGTAGGAGTCA 1990
                                                                                                        1697 TGAGAGAGGGATTTGGACCAAALIAIGAIGIGTTCTALUIAIGG AIAIGTAAAGIGA 1756
                                                                                                                                                                                                                                                                                                                                                                               2051 AGAATATAGACCTTAAATTCAAAATGATTGTAACAGGATACAAGGATCTTCCTCAFGCTG 2110
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1757 AGAATATAGAGGTTAAALTCAAAALCATTGTAAGAGATAFAAAGALCTTGTGATGTTG 1816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2111 TTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAAGAAGTATGATTCTATTATAATAT 2170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2171 TCTATARCHOGECTICATGCAGAGACTGAAAACAATATTITGCAGTATGTHOGAGTATATGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2231 GOCCOCTACCTTGTCACCAATACCTCACATTCCTCCAACCCCTTACAAGTTTCCTAGTT Z290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2291 CACCCTTAPGGATTCTTGGAGGAACATCTATATTTCACCCTTGAAGAGTCTATATAAAA 2350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2057 ITTCAGAAGGTCTGCCAACACCAACAAAAATGACTCCAAGAATCATATCTTAGTATCAA 2116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2471 GCGACCGTGTGCTCAAAAGAGGGTGAAGGAAGCAACCCTCCTAAAACCACTGAAAAAAC 2530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2531 TAPOPTTIGATATIGAAGGAIFAGAIGAAGGAGAIGGAAGIAAAGAIGTEGAGAGAGI 2590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2237 TAGGCTTTGATATTGAAGGATGAGATGAAGTAGAAGTAGGAAGTAAAGATGTCCCAGGAGAGT 2296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2591 CCANATITCAGGAGAAATGGGAGAAATGACTTCTACTCGAACACGAATGCAAAGGAGA 2650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2297 CCAAATI ICAGGAGAAATI GGCAGAAA IGATI GI ACTGGAACAGGAA I GCAAAATI ICAGAATI ICAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2651 AAATGAATGATAGGATGGATAYULYAAAGAAGGAGGAGAAALGAGGALCICAGGACTIG 2710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2711 GEGGACACEGEGEACACCEGGATECALEGECECACACACACACACACATATA A 2770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2417 GTGGACACTGTGTACACCTCTGGATTCATTGTCTCTCACAGATGTGACTGTATAACTTTC 2476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2771 CCAGGIICIGIIIAIGGCCACAIIIAAIAICIICAGCICIIIIIGIGGAIAIAAAAIGIG 2830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2831 CAGATGCAATTGTTTGGGTGATTGCTAAGGGAGTGAAATGTTAGTGATTGTTATTATA 2890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2537 CAGALGCAAITGITIGGGLGALICCIAAGCACILGAAAIGIIAGICALIGITAITAITTAIA 2596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2891 CAAGATTGAAAATCTFGTGTAAATGCTGCCAFTTAAAAAAGTTGTAGCAGATTGFTFCCTC 2950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2597 CAAGATIGAAAATCTIGIGIAAATCCIGCCAITTAAAAAGTIGIAGCAGATIGITTCCTC 2656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2951 TTCCAAAGTAAAATIGCTGTGTTTAIGGAIAGIAAGAAIGGCCGTAGAGIGGGAGTCT 4010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2177 GCGACCGTGTGCTCAAAAGAAGTGCTGAAGGAAGGAACCTCCTAAAACAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                           Ġ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . ŏ
                                                                                                                                                 a
                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              _{\rm O}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
```

4.11 GATAACCCGACCTGTCTGCCTTTTTGTAGCATATAGCATATAGTTTGTTT								
2717 2717 2717 2717 4131 4131 4131 4131 4131 4131 4131 4	3070 2776	3130 2836	3190 2896	3250 2956	3310	3370	3430 3136	
			-					TITTHAAATGACGATTATTGATAGT
						÷ ÷	57. 11b.	§ #

Search completed: January 18, 2003, 04:25:13 Lob time: 129,888 sees

```
4609
                                                                                                                                                                                                                                                                                                                               4333.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          150.5
                                                 4605.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Defined the property of the pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Appli
Sequence 143, App
                                                                                                                                                                                                                                                                                                                                                                      (Without alignments)
6107.852 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                          January 18, 2004, 04,31,54 , Search Line 67 7433 Seronds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MPPKTPRKTAATAAAAAEP.....TRMQKQKMNDSMDTSNKEEK 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Published Applications_NA:*

1: /cqn2.6/ptodata//pubpna/DSD_DUBCNMB.scq:*

2: /cqn2.6/ptodata//pubpna/DSC_NFW_DBH_scq:*

4: /cqn2.6/ptodata//pubpna/DSC_NFW_DBH_scq:*

5: /cqn2.9/ptodata//pubpna/USO6_PUBCNB_scq:*

5: /cqn2.9/ptodata//pubpna/USO6_NFW_DBIS.scq:*

7: /cqn2.6/ptodata//pubpna/USO8_NBW_DBIS.scq:*

8: /cqn2.6/ptodata//pubpna/USO8_NBW_DBIS.scq:*

8: /cqn2.6/ptodata//pubpna/USO8_NBW_DBIS.scq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   //ging_6/ptodata/1/pulpha/US10_PUHCOMESeq:*/cyng_6/ptodata/1/pulpha/US60_NEW_PUB_seq:*/cyng_6/ptodata/1/pulpha/US60_PUHCOME.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /cqn2_5/ptodata/1/pubpna/9509_PUBCoMb.seq:*
/cqn2_6/ptodata/1/pubpna/US10_NBW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /cqn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
                                                                                        Popyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                  nucleic search, using trame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10 03-09-469-522-1
9 03-09-954-531-143-10 03-09-964-531-7-11-7-10 03-09-469-522-50
                                            General version 5.1.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lotal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         191868 seqs, 222944149 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xqapop 10.0 , Xqapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6.0 , Eqapext
6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ydapop 10.0 , Ydapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post processing: Minimum Match 0%
Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Model - tranco perimodel - DEV-vib
0= 1 ter 1 Test Stand in Care 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 09 626 459A Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7 JWUSETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'ommand line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Equipop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0
100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Delop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unrig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                fitte:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4737
4787
4787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.6.1.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Section table;
                                                                                                                                                                                                                                  M protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atabase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Resignable
```

Sequence 7, Appli Sequence 50, Appl

4839 2995 3554

```
Sequence (7, Appl Sequence 2, Appl Sequence 2, Appl Sequence 4, Appl Sequence 4141, Appl Sequence 1910, Appl Sequence 51, Appl
                                                                                                                                                                                                           44, Appi
4, Appii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 163, App. Sequence 305, App. Sequence 216, App.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 346, App
Sequence 292, App
                                                                             Appl
                                                                                                                                Appl
Appl
                                                                                                                                                                                                                                                              Af.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 186, App
Sequence 175, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 359, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 9859, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Appl1
                                                                                                                                                                                      Appl
                                                                                                                                                                                                                                                                                      Sequence 46, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1154, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 59, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 293, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1242, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 40, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 145,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2546,
                                                                                                                                                                                                                                      Sequence 3, 4
Sequence 44,
                                                                                                                                   Sequence 42,
                                                                                                                                                        Sequence 42,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3
                                                                                                                                                                                                           Segmente
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                    0S-09-292-758-37

0 US-09-292-758-37

0 US-09-220-091-4

0 US-09-220-091-4

0 US-09-864-76-1 1911-0

0 US-09-864-76-1 1911-0

0 US-09-964-86-30-0

0 US-09-966-31-0

0 US-09-966-31-0

0 US-09-967-31-0

0 US-09-967-768-11-0

0 US-09-967-768-11-0

0 US-09-967-768-11-0

0 US-09-967-76-11-0

0 US-09-967-76-11-0

0 US-09-967-76-11-0

0 US-09-967-76-11-0

0 US-09-967-76-11-0

0 US-09-96-92-24-0

0 US-09-98-98-98-98-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65 - 09 - 343 - 26.7A - 1
US - 09 - 851 - 682A - 2
US - 09 - 960 - 253 - 145
US - 09 - 801 - 368 - 59
                                                                                                469-522-48
-469-522-48
-469-522-42
469-522-43
469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05 09 854 864 - 293
                                                                                                                                                                                                                                                      469-522 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-098-841-40
US-09-866-557A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Armold, White & Durkee STREET: P.O. Rox 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: USZO9/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-Dus/MS-Dos
7 + 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 - 60 - 80

10 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application UN, 39463522
: Patent No. 7828920151461A1
: GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                                      10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPRISTONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Homq Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
21P: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8474
10300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6386
6750
6409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36.24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2526
455± 47
                                                                                                                                                                                                                                                                                                            3960
                                                                                                                                                                                                                                                                                                                                                                                    4504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \frac{10211}{10211}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-469 522-1
                                                                                                                                                                                                                                                   4068.5
4017
806.5
516.5
385.5
243
177.5
                                                                     4454.5
4447.5
4401.5
4367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              147.5
147.5
145.5
141.5
141
138.5
                                                                                                                                                                                                      4273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       160
                                                  449.9
```

```
#1 ValSerSerValAcpSlyValLeuGlyGlyTyrIleGlpLyaLysLysGlwLeuTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161 (1eCys) LePhelleAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       457 GAGAAAAAGAIAGAAA PGAGTIGTIGGATAAATTTIGTITTAAGTITAGTAAAAGAAATTIGATAGG 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               141 SerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (4) ContheSertysteadluArgThrCysGluLeufleTyrLeufhrGlnProSerSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            487 STCTTCASSAATTSSAAGGASASTGGAACTTATATATTIGACACAAGCGAGGGTICG 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 HeserthroluffeAsnSerAlaLeuValLeuLysValSerTrpHeThrPheLeuLeu 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            201 AlaLysGlyGluValLeuGlnMetGluAspAspLeuVallleSerPheGlnLeuMetLeu 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 FroAlaProProProProProGradinAspProfluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41 AspteuProleuValArgleuGluPheGluGluThrGluBroAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6] SysthiysteutystleProAspHisValArgCluArgAlaTrpLeuThrTrpCluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MetProproLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ** AICIGIAICIIIATIGCAGCAGIIGACCIAGAIGAGATGTCGTTCACTITIACIGAGCIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3555
928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .26-459A-2 (1-928) x US-09-469-522-1 (1-3555)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches:
                                                                                                                          REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           indols:
FRICE APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 7..2790
SEQUENCE DESCRIPTION: SEQUENCE DESCRIPTION: 1:
                                                                                NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                  1. 512/418-3000
512/474 7577
                                                                                                                                                                                                                                                   LENGIH: 3555 base pairs
                                     FILING DATE: <Unknown>
ALIORNEY/AGENT (NEOFMATION)
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                           TYPE: nucleic acid
SIKANDEDNESS: single
                                                                                                                                                                                                          INFORMATION FOR SEQ ID NOT 1:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4797.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.008
                                                                                                                                                                                                                                                                                                                   Papel,OGY - linear
                                                                                                                                                                                                                                                                                                                                                                SCC
                                                                                                                                                                     DELEPTHONE:
                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bost Logal Similarity:
                                                                                                                                                                                         LELEFAX ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Actignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         colory Materio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       င်
```

```
1147 ACIAICCAACAAIIAAIGAIGAIHIIAAAIICAGCAAGIGAIGAACCIICAGAAAAICIG 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1087 AACCTTGATGAAGGTGAATGTAATTCCTCCACACACTCCAGTTAGGACTGTTATCAAC 1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1627 AACTTGACAAGAGAAATGATAAAACATTTAGAAGGAFGTGGAACATGGAATGAATTAAAATAA 1627 AAG
                                                                                                                                                                                                                     321 TyrGluGluIleTyrLeuLysAsnLysAspLeuAspAlaAryLeuPheLeuAspHisAsp 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361 AsnLeuAspGluGluValAsnValIleProProHisThrProValArgThrValMetAsn 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              381 ThrileGinGinLeuMetMetIleLeuAsnSerAlaSerAspGinProSerGluAsnLeu 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    441 lleGlySerGlnArgTyrLysLevGlyValArgLeuTyrTyrArqValMetGluSerMet 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       461 LeutysSerGluGluArgLeuSerTleGlnAsnPheSerTysLeuLeuAsnAspAsn 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481 IlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValWatAlaThrTyrSerAra 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         501 SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrpIleLeuAssnVal 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   521 LeaAsnLealysAlaPheAspPheTyrLysValHeCluSerPheTleLysAlaGluGly 540
                                                         221 CysVallemAspTyrPhetHetHstanSerPhoProMett.culculysGluFrofyrtys 240
                                                                                                  667 TGTGTCCTTGACTATTTTATTAAACFCFCAOOLOCCATGLIGCTCAAAGAACAACATATAAA 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               787 GCACGCATAGCAAAACAACTAGAAAAIGATACAAGAAITATIGAAGITCTCTGTAAAGAA 845
                                                                                                                                                                                                                                                                                                                                            847 CATGAATGTAATATAGAGGGGGAAAAATGTITATTICAAAAATTTTATAGCTTTIATG 906
                                                                                                                                                                                                                                                                                                                                                                                                                             907 AATTCTCTTGGACTTGTAACATCTAATGGACHICCAGAGGTIGAAAAICHILGTAAACGA 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                607 GCTAAAGGGAAAGIAIFAGAAATGGAAGAIGAIGIGGIGAIFICATITCAGITAATGGIA
                                                                                                                                                               241 ThrAlaValIleProIleAsuGlySerPLoArqThrFroArqArgGlyGlnAsuArqSer
                                                                                                                                                                                                                                                                                                   28. HisficysassileaspoluvallysasivalTy.Phelysasihellenothemet
                                                                                                                                                                                                                                                                                                                                                                                    301 AshSertenGlyLenValThrSerAshSlyLenBroSlyValGluAshLenSerLysAra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          967 TACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGGAAGATTATTTTGGATCATGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541 AsnLeuThrArgGluMetIleLysHisLeuGluArgCysGluHisArgIleMetGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1567 CIIAAIIIAAAAASSIIIGAIIIIIACAAAGIGAISGAAASIIIIAICAAAASAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _
_
_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ΩĐ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
d
                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                            ź
                                                                                                                                                                                                                                                                                                                                                                                    ã
                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    نځ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ωÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
```

JS-09-954-531-143

3. <b>A</b> C.	HislendinserAlaCysProLenAsni.euProLenGinAsr
	THELLITELLE LEGET TO BE TELLE LEGET TO BE THE STATE OF TH
ThrAle TELLII ACLOOM	ualiakspikettysteeserprovalakspoepertystysstysstysstysteeterte see ELLELLELLELLELLELLELLELLELLELLELLELLELL
Taylar Title	ArdvalAshserthrAlaAshaladluThrClhAlathrevalathevitetbyCletys 649 
Prole	ontyssorthrsortousortoub)ctyrtystysyjttyrargioualatyrticu (60    HTTLEFFEETHEETHEETHEETHEETHEETHEETHEETHEETHE
Mrq Le 1111 30071,	Argleudsorthifeutyschudeiteuteusersludiskrostateustudistleite 680 1417   HILLIHTHELHITHHHHHHHHHHHHHHHHHHHHHHHHHH 000 TAAATACACHTISTSAASOCTICTSTSTSACCACCAGAATTAGAACATATCATC 2046
17 p 1 h 11 1 1 1 1GGAC	Pipitricuphedinhistbricoginasegiutyrdinicometarqasparqhisten 700 
Aspoli FEFF	Aspetrolowermercysochwertyrglytlecystysvallysascheaspledigs 720 FILLITTILLTITTILLTELLETTILLTHTTTTTTTTTTTT
Phety:	Phetysthethevalthratatyrdysaspleuproffisalavalgludluthrphelys 740 
ArgVa 	Arqvallogiloginglogloglogloglogloglogloglogloglogloglog
Met G L H H H H A	Met Charqueulys thrasnilletenghriyra Laserthrafgproprothrieusar 780 1111   1111
Prolle          CCAAIL	ProlleProffislleProArqSerProTyrLysPheProSorSerProLeuArqIlePro 800 
617617 	GLYGLYASHILELYTHESETPTOLEGLYSSETPTGTYTLYSTHESETGLUGLYLEUPFO 1920 HTHTHTHTHTHTHTHTHTHTHTHTHTHTHHTHHTHHTHH
Threre IIIIII ACACC	DifferothilysMetThiProatqSerArqTleLcuValSerTleGlyGluSerPheGly 840 
Thrise	The Serolotys Pheolotys The Asnolomet Valoys Asniser AspArqValbeutys 860 
Arqse  -i-i-i- AGAAG	AFGSCFALATHELITHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTH
GLYSer 11411 GGATC	GTYSer Aspidina Laaspotyser Cyshisteeproctycluser tystbectictings 1900 1111 till till till till till till till
LeuAld HTTT	Leualadiumei Dirsethiaasathiaasmet (920) 1111 14 14 14 14 14 14 14 14 14 14 14 14
Aspthrs 	r Ser Asniys Choliniys   928 

```
TILE OF INVENTION: Process for identifying Anti Cancer Therapoutic Agents Using C TILE OF INVENTION: Process for identifying Anti Cancer Therapoutic Agents Using C TILE OF INVENTION: Gene Sets FILE REPERENCE: 689290-75 CURKINT APPLICATION NOMBRE: 2002-95-02 CURKINT APPLICATION NOMBRE: 2002-95-02 PRIOR PELING PATE: 2000-95-02 PRIOR PELING ANTE: 2000-09-18 PRIOR PILING ANTE: 2000-09-18 PRIOR PILING ANTE: 2000-09-20 PRIOR PILING ANTE: 2000-09-20 PRIOR PILING ANTE: 2000-09-20 PRIOR PILING ANTE: 2000-09-22 SOOFWARE: PATENT AND NOS: 1392 SOOFWARE: PATENT AND NOS: 1392 SOOFWARE: PATENT AND NOS: 1392 SOOFWARE: 2000-09-22 SOOFWARE: 2000-09-20 SOOFWARE: 2000-09-20 SOOFWARE: 2000-09-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101 IleCysIlePhelleAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               258 GACCEGCCTCTCGTCTTCGAGTTTGAAGAAGAGAAGAAGATTTTACTTTACTTA 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161 LeuPheSerLysLeuGluArqThr@ysGluLeuIleTyrLeuThrGlnFroSerSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 ProAlaProProProProProProGluGluAspProGluGluAspscrClyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41 AspLeuProLeuValArgLeuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 CysClntysLeutysTleProAspHisValArqGluArqAfaTrphauthtHipGluiys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-026-459A-2 (1 928) x 03 09 954 531-143 (1 4839)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels:
; Sequence 143, Application US/09954531
; Patent No. US20020165180A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score:
Perceit Similarity: 100.00%
User Local Similarity: 100.00%
Usery Match: 100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-954-531-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGIH: 4839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qa ··
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>고</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ੋਂ
```

•																
7 0 6	220 797 240	857 260 917	.80 977	300 1037	320 1097	340 1157	360 1217	380 1277	400	420 1397	440	460	480	500 1637	520	540
CICILORGIAAATTGGAAAGGCATGTGAACTIAIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	T 10 - 1	TOTATION OF THE PROPERTY OF TH	A13  GCA	His      	Agnsortond ytonvalmbrsorasng tyteuprocluvatgludsollousch.   LELLI   LELI   LELLI   LELI   LELI	TIT	Lys    AAA	Asn AAC	Thr  ACI	ile   AIT	Asp  GAT	A = 1	Lea CIT	11e i   1 ATT	Ser H	11 = 13 =
3 3 6 7	o mi na ∞		261 918	281		321 1098	341 1158	351 1218	381 1278	¬ →	421 1398		461 1518			521
48 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	දුර සි සි සි	2 5 A	Qy Sp	yy Dp	55 es	5 g	र्ड इ	oy Db	à a	0.y 0.b	cy ag	ς q	Q.y Dh	67 CY	2 C C	ŝ

```
2238 GACCAAAITAGAAISTSITOFATSIAGSPATATOFAAASISAAAAATAAAAAAITAGAAGULGAAA JOST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1698 CITAATITAAAAGOOTITGAITITIADAAAGIGAIGAAAGIITIATGAAAGOAGAAGGO 1757
                         2178 TIGGACICITITICIAGO A A A PAGA A GA A TATAGA A GA A TATAGA A CACACACACACA CONTITIC 2237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2538 GGAGGGAACATCTATATTTCACCCTGAAGAGICCATATAAAATTTCAGAAGCTCTCCCA 2597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2718 AGAAGTIGTTGAAGGAAGGAAGGGTGCTGCTAAAAGTAAAAGTAGGGTTTGAAATTGAA 2777
                                                                                                                                                                                                                                                                                                      641 ProjeulysSerThrSerLeuSerLeuPhcTyrLyslysValTyrArgicuAlaTyrLcu 660
                                                                                                                                                                                                                                                   621 ArgValAsnS-rThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys 640
                                                                                                                                                                                                                                                                                                                                                             661 ArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGluHisIleIIe 680
                                                                                                                                                                                                                                                                                                                                                                                                                 681 TrpThrLouPhoGlnHisThrLeuGlnAsnGluTyrGluLeuMetArgAspArgHisLeu 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721 PheLysllelleValThrAlaTyrLysAspLeuProHisAlaValGlnGluThrPheLys 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                741 ArgValLeufleLysGluGluGluTyrAspSerflelleValPheTyrAsnSerValPhe 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       821 ThrProThrLysMetThrFroArgSetAtgIleLeuVaiSetIleGlyGluSerPheGly 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  861 ArgSerAlaGluGlySerAsnProProLysProLeuLysLysLeuArqPheAspIleGlu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841 ThrSerGluLysPheGlnLyslleAsnGlnMetValCysAsnSerAspArgValLeuLys 860
                                                                                  561 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGlnSerLysAspArqGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      701 AspGinlleMctMctCysScrMctTyrClyllcCysLysValLysAsmllcAspLculys
                                                                                                                                       581 GlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGlnAsnAsnHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             801 GlyGlyAsnIleTyrIleGorProLeuLysSorProTyrLysIleSecGl.Gl, LeuEro
                                                                                                                                                                                                                                                                                                  ; 0y
                                                                                                                                                                                                                                                                                                                                                                                 gg
                                                                                                                                                                                                                                                                                                                             i. Dis
                                                                                                                                                                                                                                                                            Db
                                                     qq
                                                                                  ò
                                                                                                                                                                                                                    Ob
                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QC
                                                                                                                                       Οÿ
                                                                                                                                                                                                                                                                                                                                                              δy
                                                                                                                                                                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dβ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Β
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
```

```
US-09-026-459A-2 (1-928) x US-09-860-211 7 (1 2995)
                                                                                                                                                                                                                                                                                                                                                                                                                                           ۲۵
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q0
:
                                                                    g
                                                                                                                                     9
                                                                                                                                                                       ò
                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>۾</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   č
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>a</u>
                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                901 LegAladiaMetThiserthrArgthrArgMetClniysClniysMetAsnAspSerMet 920
                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: Recombinant Adenoviral Vector and Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0-00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INPORMATION: /product- "RH" /note: "retinoblastome fumor suppressor" SEQUENCE DESCRIPTION: SEQ ID NO: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              016940-00092008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/328,573
FILING DATE: 15-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILINE DATE: 25 oct. 1993
APPLICATION NUMBER: US UN/233,669
FILING DATE: 26 APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: IIS DRZ142, 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/U9/860,211
FILING DATE: 18-May-2901
CLASSIFICATION: <URKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERALLING SYSTEM: PC DOS/MS-100S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: THM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 35,367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FELECOMMUNICATION INFORMATION: TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                    APPLICANT: Gregory, Richard J. Wills, Ken N. Maneval, Daniel C.
                                                                                                               2898 GALACCICAAACAAGGAAGAAA 2921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE / DAICHET NUMBER -
                                                                                 921 AspthrserAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
                                                                                                                                                                                  Sequence 7, Application US/09850211
Patent No. US250201(7212A)
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FELEFAX: (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Smith, Timothy S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    149..2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO. 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                              San Francisco
                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4787.00
                                                                                                                                                                                                                                                                                                                                                                                                            STAIR: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96.8.66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            39.89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            86.2.66
                                                                                                                                                                                                                                                                                                                         NUMBER OF SHOURNCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 94111 4844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECTILE TYPE: CONA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME AKEY - 1006
                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COPPLICACY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCALLON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alaqument Scores:
                                                                                                                                                                    US 09 - 860 211 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US 09 860 211·7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Querry Match:
                                                                                                                                                   RESULT 4
                                                ÷
                                                                                  5
```

```
979 CATGAATGTAATATAGATGAGGGGAAAAATGTTTAJT FYAAAAATTITAJACTTIJIATG 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .099 TACGAAGAAATITATCITAAAAATAAAGATCTAGATGCAAGATTATTTTTGGATCATGAT 115B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81 ValSerSerValAspGlyValleou31yGlyTyr HedlhitysLystLystTuLeot1pA31y 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       201 Hisstorysasmileaspstovallysasovaltystocketysasophetternen (00)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 AsnSerLeuGlyLeuValThrSerAsnGlyLeuProGruValGluAsnLeuSerLysArg 420
                                                                                                                                                                                                                                                                                                                       101 IleCysllePhelleAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 GlnLysAsnIleGluIleSerValHisLysPheFheAsnLeuLeuLysGluIleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141 SerThritysValAspasaAlaMetSerArdiculesitysitysiytaspValleuphoAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201 AlalysGlyGlnValLeuGlnMetGluAspAspLeuVallleSerPheGlnLeuMetLeu 22n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 ThralaValileProfleAsnGlySerProArqThrProArqArqGlyGlnAshArqSer 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HITHELLELLE HELLE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 261 AlaArqileAlaLysChileaCluAsnAspThrArqileileGlaValLeaCysLysGlu 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  919 GCACGGATAGCAAAACAACTAGAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAA 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321 TyrGluCluLlCfyrLculysAsnlysAsphouAspAba7dlouPhotonAspH1sAsp (40)
                                                                                                                                161 LeuPheSerLysLeuGluArqThrCysGluLeufleTyrLeuIhrGluFroserser 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              559 AGTACCAAAGTIGATAATGCTATGTCAAGAGTGTIGAAGAAGTATGATGATGTTTGCA 618
1 MetProProLysThrProAraLysThrAlaAlaAlaAlaAlaAlaAlaAlaAlaAlaBlaBro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41 AspLeuProLeuValArqLeuGluPheGluGluThrGluGluProAspPhaThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 CysGlnLysLeuLysIleProAspHisValArqGluArqAlaTrpLeuThrTrpMlnLys 80
                                                                                                                                                                                                                                                                 21 ProAlaProProProProProProGluGDASpProGluGDASpSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           441 LysThrLeuGlnThrAspSerIleAspSerPheGluThrGluArqThrProArqEysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221 CysValleuAspTyrPheIleLysLeuSerProProMetLeuLeuLynnluFruT,illys
```

380 1278 400 1338 420 1398 1440	5711 5711 5711 5711 5711 751		640 2058 660 2118 680 2178 700 727
ASTILEGRAND GUVA LASINA HEPTOPTOHISTHTPTOVA LATGITHT HILLIHITH ANCETS AN	HedlySorthargTyTLysteudlyValArgledTyTTyTarqValMetGluSerMe Alight Hillillillillillillillillillillillillill	Ashled thrangelumetile by SHisheudiuary cysciulisaly itemeted tuse and thrangelumetile by SHisheudiuary cysciulisaly itemeted tuse and translated the same statement and the same statement to the same statement that the same statement to the s	Aqva labsecthra labana deluthrolina lathescratabled nithrolling in the Hillith
461 1219 881 1279 403 421 421 1899	1.0 5.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	541 1759 1819 1879 1839 1939	641 2059 641 2059 681 2179 761
\$ 4 \$ 6 \$ 6 £ \$ £		ੇ ਜੋ ਤੋਂ ±ੇ 3 ±ੇ 3 ਜੋ .	3

```
801 GlyGlyAsmileTyrileSerProLeuLydSerProTyrLysileSerGluGlyLeuPro 820
                                                                                                                                                                                                                                                                                                                                                  841 ThrScrCluiysPhc3lnLysTleAsnClnMctValCysAsnScrAspArqValLcuiys 860
                                                                                                                                                                                                                                                                                                                                                                                                          861 ArgSerAlaGluGlySerAsnProProLySProLeuLySLysLeuArgPheAspileGlu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    881 GlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSerLysPheGlnGlnLys 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901 LeuAlaGluMetThrSerThrArgThrArgMetClnLysClnLysMetAsnAspSerMet 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Benedict, William F.
Zhou, Yunli
TITUE OF INVERTION. MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS: ADDRESSE: ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APFILIDATI N. NUMBER. US, US, 469, 522
FILING DATE: 22-Dec-1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2899 CATACTICAAACAAGAAGAAAA 2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  921 AspthrserAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Sequence 50, Application US/09469522
; Patent No. US20020151461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: P.O. BOx 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SHOURNCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT, Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TS-09-469-522-50
; Sequence 50, An
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 4
                                                                                                                                             qq
                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                   δž
                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                           Š.
                                                                                                                                                                            Q.
                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
```

```
487 CHITTCACHARALLGGAAAGCAHTGLCAACTTATATATTTGACACAACAACAGCAGCAGCHTCC 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8) ValSerSerValAspGtyValLeuGlyGlyTyrHeGlnLysLySCFuLeuTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             141 Serihit/ysValAspAsnAlaMetSerArgLeuLystysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        161 LeuPheSerLysLeuGluArgThrCysGluLeuIleTyrLeuThrGluProSerSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   141 TheSerthrGinfleAsnSerAlaLeuValLeuLysVaiSertrpHethetheuLeu 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              247 HILLMARTEGIGGALGGAGIALIGGGAGGILAIATTCAAAAQAAAAAGGAAGTGTGGGGA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101 LiedysilePhelleAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407 ALCHGIALCHTIATIGGAGCAGTIGACCIAGGIGAIAIGECGFIGACHFFIACTGAGETA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 ChriysAsnileChilleSerValHisLysPhePheAsnieuLeuLysChulleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46.7 CAGAAAAAQATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAAATTGATACC 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  427 ACHACCAAAGHIGATAAFGCFATGFCAAGACFGHGAAGAAGFATGAFGTFGCA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 CYSGInLySLeuLySTleProAspHisValArgGluArgAlaTrpLeuThrTrpGluLyS 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  l MetProProlySThrProArglySThrAlaAlaThrAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41 AspLeuProLeuValArgLeuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US 09 026 459A Z (1 928) x US:09 469 522-50 (1 3554)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches:
Indels:
                ATTORNEY/AVENT INPOPMATION:
NAME: Hibler, Lavid W.
NAGESTRATION NUMBER: 41,071
REFERENCE/ROCKET NUMBER: 01XC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches:
                                                                                                                                                                                                                                                                                                                         LOCALTON: 7..2750
SEQUENCE DESCRIPTION: SEQ TO NOT 50:
APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPRONE: $12/418-3000
TELEPRON: $12/474-7577
INPOHMALION POR SEQ. ID NO: 50:
SEQUENCY CHAPACTERICS.
                                                                                                                                                                                                        LENGIR: 3554 base pairs
IYPE: nucleic acid
                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                            4787.00
                                                                                                                                                                                                                                                                  ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  968.66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44.78%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     866.66
                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                      Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                 15 09 469 522 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
```

```
967 TACGAAGAATTTATGFFAAAAAAAAAAGALCFAGAAGATAATTTI BGGATCATGAL TOZ6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HILLIH HER HILLIH HILIH HILLIH HILLIH HILLIH HILLIH HILLIH HILLIH HILLIH HILLIH HILLIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1567 CITAATITAAAAGCCITIGATITITACAAAGIGAICGAAAGTITITATCAAAGCAGAAGGC 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1207 ATTTECTATTTTAACAACTGCACAGTGAATCCAAAAAAATATACTGAAAAAGTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1627 AACTTGACAAGAGAAATGATAAAACATTTA3AACGATGTGAACATCGAATCATGGAATCC 1686
                                                                             381 ThrileGinGinLeuMetMetileLeuAsnSerAlaSerAspGinProSerGluAsnLeu 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          401 IleSerTyrPheAsnAsnCysThrValAsnProLysGluSerIleLeuLysArqValLys 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   441 IleGlySerGlnArqTyrLysLeuGlyValAraLeuTyrTyrAraValMetGluSerMet 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  461 LeuLysSerGluGluArqLeuSerTleGluAsnPheSerTysLeuLeuAsnAsnAsn 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481 HePheRisMetSerieuLeuAlaCysAlaLeuGluValValMetAlalhulyrSerArg 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   501 SerThi SerGhiAshLeuAspSerGlyThiAspLeuSerFheProTrpHeLeuAshVal 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  521 LeuAsaLeuLysAlaPheAspPheTyrtycVallledluSerPhellotysAladladly 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    561 LeuAlaTrpLeuSerAspSerProLeuPhoAspLeuIleLysGluSerLysAspArqGlu 580
                                                                                                                                                                                                                                                                                           301 AshSerticuClyticuValThrSerAshStyticuProfluValGluAshtenGribysArq (20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             907 AATTCTCTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAAT.TTTCTAAACGA 966
607 GCTAAAGGGGAAGTATTACAAATGGAAGATGATGTGTGATTTGATTTGATTAAGTAATGGTA 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 ThralaValifeProffeAshClySerProArgibitProArgArgOlyThaShArgSer
                                                                                                                                                                                                                                                                                                                                                                                                              261 AlaArgileAlaipsolida oliaAddAq HiArqileTiediaVadda olyobasha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     847 CATGAATGTAATATAGATGAGGTGAAAAATGITIATIICAAAAAIIIIAIACTIIITATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321 TyrdladlufleTyrLeatygAsatysAspLeuAspAlaArqLeuPheLeuAspHisAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361 AsnleuAspCluCluValAsnVallieProProPisThrProValArgThrValMetAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541 AsnicuThrArqGluMetIleLysHisLouGluArqCysGluHisArqlleMetGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         341 LysThrLeuGlnThrAspSerIleAspSerPheGlnThrGlnArqThrProArqLysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \ddot{s}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                     5
                                                                                                                                                                                                                                                                                                                             ä
                                                                                                                                                                                                                                                                                                                                                                                                                   ; ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
1747 GGAYCAACEGATZAZITGAAJODZITGEGYTIAADVEDYTOVIAADVEDYSAAIAAIGAS 1806
                                                                                          2-47 SCAATASSTCACATICCTCGAAGCCCTTACAAGTTTCCTAGTTCACCCTTACGATTCCT 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     867 COLCHAAAFICTACFECTAAAFICTAGAGAGAGCAAGCFICAGGCTFFCCAGAGCAGAAG 1926
                                                                                                                                                                                                                                                                                                                                   1927 COATTGAAATOTACCIOTOTITCACIGTITIATAAAAAAGIGIATGGGOIAGOOMATGIG 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2467 ACANSMANGAAAAAIGACTOCAAGATOAAGAATOTTAGTATAATIGGTGAAAAATOATTOGGG 2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2707 FIGGOAGAAATGACTTCTACTCGAACACGAAFGCAAAAGCAGAAAATGAAFGAFGAFGATG 2766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82: ThreethilysMetThrProArgSerArgileLeuValSerlleClyGluSerPheCly 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      931 TobaladiuMetThrSerThrangThrangMetGlnLysGlnLysMetAsnaspSerMet 920
                                                                                                                                                                                         621 AraValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys 640
                                                                                                                                                                                                                                                                                      94) ProtoutysSerThrSertouSertouPheTyrtystysValTyrargiouAlafyrtou 660
                                                                                                                                                                                                                                                                                                                                                                                661 ArglenAshIhrLeuCyschuArglanLeuSerGluHisPraCluLeuGluHisHelle 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    741 AraValLeuIleLysGluGluGluTyrAspSerIleIleValFheTyrAsnSerValFhe 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            761 MetGlnArqLeuLysThrAsnileLeuGlnTyrAlaSerThrArgProProThrLeuSer 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              78] ProllobroHislleDroArgScrProTyrLysPheDroSerSerProLeaArgllePro 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           881 GlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSerLysPheGlnGlnLys 900
58! GlyProThrAspHisLeuGluSerAl4CysProLeuAsnLeuProLeuGleAsnAshHis 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                581 IrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArqHisLeu 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841 ThrSerGluLysPbcGluTysThasnCluMetValCysAsnSerAspArgValTeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2767 SALACTICAAACAAGGAAGAAA 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       921 AspThrSerAsnLysGluGluLys 928
```

<u>. :</u>

 $\frac{5}{5}$ 

===

Ē

Š

<u>...</u>

ŝ

5 a

=

i di

S S

ŝ

```
95 HystysclufeuTrpGlyHeCystlePhelleAlaAlaValAspleuAspCluMetSer 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               75 TrpLeuThrIrpGluLysValSerSerValAspdlyValLeuGlyGlyTyrIleGlnLys 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         55 ProAspPheThrAlaLeuCysGlnLysLeuLyslleProAcpHisValArqGluArqAla 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35 GinAspSerGlyProGluAspLeuProLeuValArgLeuGluPheGluGluihrGluGiu
                                                                                                                                                Honedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-026 459A 2 (2:928) x US 09 469:522-28 (1-3455)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US, 03/463, 512
FILING DATE: 22-Dec-1999
CLASSIFICATION: GRADOWED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 7..2691
SEQUENCE DESCRIPTION: SEQ (DINC: 28)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AFILICALIUN NUMBER, UB, CLE, 459
FILING DATR: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                             Sequence 28, Application rejoq449522
                                                                                                                                                                                                                      PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 512/418-3000
TELEPAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGIH: 3455 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                       STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.00%
                                                                                                                                Hu, Shi-Xue
                                                                                                          APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4609.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                880.96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                          NUMBER OF SECUENCES:
                                                            ; Patent No. US29920151461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY. CDS
                                                                                                                                                                                                                                                                                                                            Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                     STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity.
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Aliqnment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                    US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-469-522-28
RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
```

171	190	AAAAAAGAACTATATITTITTITTITTITTITTITTITTITTITTITTIT	249
\$5 6¥	115	PhethryhethrGuiraudhirjsasnilediulleservallistysphetheasnileu 	134 309
5 3	145	LeuLyschut JeAspthrSerthrLysValAspasnalaMetSerargLeuLysLys 	15 <b>4</b> 369
45 A	155	TyrAspVallenPheAlaLenPheSorfysLeuGluArgThrCysGluLeuTleTyrLeu 	174
5. Eb	175	The Chiperoser Ser Ser Ser Ser Ser Ser Ser Ser Ser S	194 489
5 £	195 490	Trp11eThrPheLeuLeuAlaLysGlyGluValLeuGhmerGluAspAspLeuVallIe : 	214 549
5 A	215	SerParchateumetteucysValleuAspTyrPheTheLysLeuSerProFroMetLeu 	23 <b>4</b> 609
5 G	235	LeulyschufyolythythalavalHeproHebrichyserfycargthrfyodr 	254 669
\$ 6 6	255	Argolyginasnargs-ralaargilealatysointe-oduasnaspthrargilette . FILLELLELLELLELLELLELLELLELLELLELLELLELLE	274
\$ 3 2	275	GLUVALLEEUGYSLYSGLUHISGLUGYSASDELTEASPOLUVALLYSASDVALTYFPHELYS 	294
5 G	295 790	Asopho (Loprophomot Asosoricous) yleoval the Ser Asos (yleoprostius)	314 ` 849
5 £	415 850	Gludsnik-viserLysArqTyrgluGluLleTyrLenLysAsnLysAspl.euAspAlaArg 	33 <b>4</b> 909
5 ±	545	LeupheleudspilisAsplysThrLeuGlnThrAspSerfleAspSerPheGluThrGln 	35 <b>4</b> 969
5 3	3.70	AFIGHER PEOAFIGESSOFASELOUSSEGENOUGENSEVATHOUS OF OFFICE THE THE SEVATHOUS OF OFFICE THE STATE ANAACACCAAAAAAATAACT GATGAAAAAGTAAACT CAACAAAAAAAAAA	474 1029
5 4	10.40	Valargihi ValMer Asufhi (1eGinGinLeuMer Met I) eLeuasusseralasserasp 	394 1089
	1090	GlubroserollaksudoullesertyrbbeksaksudysthrVallksuprotyschuser 	414 1149
55 431	415	Descrips Artigly   1988 p. Dediyiyi   Debleys Globys Picahalys Alaya   DETERMINED   DETERMINED	434
र्ड इ	4 45	GLYGLBGLYGYSVALGLULLEGLYSEFGLBAFGTYFLYSLEGGLYVALAFGFEUTYFTYF FELLELLELLEGLYGAAALTGGAFGAGGGATAGAAGTTGGAGTTGGFTTGTAFTTAG	454 1269
Ś	455	ArqValMotGluSerMetLouLysSerGluGluGluArqLeuSerIleGluAsnPheSer	474

qq	-	ATCCATICAAAATTITAGC	671
οy		aCysAlaLeuGluValVal	4.54
q(1	-	GIGGGCICTICACCTICIA	1389
cy Ob	-	rGlyThrAspLeuserPhe FFITTITITITITITI TGGAACACATTTGTCTTTC	514
cy Db	-	eTyrtysValifedinser Hillililililili TTACAAAGTGATCGAAAGT	5.84
QV Db	-	shistoodigarqoysdig IIIIIIIIIIIIIIIII ACATITAGAACARGAA	554
o o	_	oleuPheAspleulletys IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	57 <b>4</b> 1629
oy Dp	7	ralaCysProbenAsmLeu HIIIIIIIIIIIIIIIIIII IGCTIGICCTCTIAAICIT	594 1689
cy Db	-	r Provatar qsor Probys TOTELLE HELLE HELLETT TOCTOLARA LOTOCAAAG	614
ςλ Db	1	adluThrdlnAlaThrSer ITLLLLLLLLLLLLLLLLL AGAGATACAACCTCA	6.4 <b>4</b> 1809
Oy Dp	1	r Leupberyr Lystysval 	654 1869
oy op	1	offenteuserchuffispro HIIIIIIIIIII CCITCTCTCTGACCCA	674 1929
oy ob		udinAsudiuTyrdiuLeu IIIIIIIIIIIIIIIIIII GGAGAAIGACIAIGAACIC	694 1989
oy Db	-	t [yrG]yi LeCystysVa] [[[[]]]]]]][[[]]]] GTATGGCATALGCAAAGTG	714-2049
QY Db	.7	rtysAsptenProHisAla IIIIIIIIIIII CAAGGAICTPCICATGCI	7.44.2.103
ò a	~	uTyrAspSerTleTleVal HTHHHHHHHHHHH GTATGALPTATAGTA	754 2169
cy Dp	~1	eleudiniyiAlaserThr IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	774 2229
oy Db	Oy 775 ArgProProPricuSetProffeProHistLebroArgSetProfytLystPud+104-1746   HillithHillit	TPTOTYLIASPROPTOSET TELETITETTETT POOLIASAAD FIGGIAM	744
97 QU	7	obeolypser FroTyrlys HIHHHHHHHHHH CCIGAAGACHCALATAA	814 2449
Oy		4SetAtq11etcuValSet 	844

```
2470 APPRAPORTOTOTOTOTOTAAAASAASTOTOTAAAGAAAGCAAGCCOOLAAAAGCAGCGAAAAAA 25.29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2530 CIACGCITTGATATTGAAGGATGAAGGTAGAAGTGGAAGTAAAGTAAATATFTTTTTAGAGAGG 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     111.1 | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 1111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 111| | 1
                                                                                                                                                                                                                                                                                                                                                                                                                       875 teaaratheaspiteGluGlySerAspClualaaspClySertysHist.cultroClyGlu 894
with items of properties of the second of pathodial year the Asactin Met Validys Asan 1854
                                                                                                                                                                                                                 855 SerAspArqValLeuLysArqSerAlaGluGlySerAsnProProLysProLeuLysLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              895 SerLysPheGlnGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysGln 914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION. MODIFIED RETINORIASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2650 AAAATGAAFGATAGCATGAATCCTCAAACAAGGAAA 2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    915 LysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ANDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 98/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 7..2697
SEQUENCE DESCRIPTION: SEG ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 22-Dec-1999
CLASSIFICATION: CHARMOWD>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LELECTOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 40, Application 0S/09469522
Fulent No. US2:020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    512,7418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 3461 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Allokney, Zagent ineogrammiton:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIREEI: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TURKENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 77210-4433
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shi-Xuc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CUUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TENCHORES IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US:09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US 09 469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
```

3461

Length:

c

Fred. No.:

```
-----GTCGACCTAAATGACATGTCGTTCACTTTTACTGAGGTA 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127 GACCTGCCTCTCGTCAGGCTIGAGTTTGAAGAAACAGAAGAACCTGATTTTACTGCATTA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91 ValSerSerValAspGlyValLeuGlyGlyTyrlleGluLysLysLysLysGluLeuIrpGly long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101 HcCysHePheHeAlaAlaValAspLeuAspGluMetSerPheThrPheThrCluLen 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12. ClaifsAsalleClaileSerValHisLysPhePbeAsnLcuiculysGluileAsplh 14u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             141 SerThriysValAcpAscAlaMetSerArgLeuteutgstysTyrAspValteufheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161 LeuPheSerLyst.cuGluArgThrCysGluLeufleTyrLeuThrGlnProSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   394 CICIICAGAAAN MAAAAGACAISIGAACIIAIAIIIIGACAAAAAGACAIICG 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 HeSerThrGluileAsnSerAlaLeuValLeuLysValSerTrpHeHelleuLeuLeu 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201 AlatysdlygluVallesGlaMetGluAspAspLeuVallleSerFhrGluLesMetLes 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221 CysVallouAspTyrPhelleLysteuSerPrePreActicalAutysCluib STyrLys 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           634 ACAGCTGTTATACCCATTAATGCTTCACCTCGAACACCCAGGCGAGGTCAGAACAGGAGT 693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     694 GCACGGALAGCAAAACAACTAGAAAALGALACAAGAALIALTGAAGLICICTGLAAAGAA 753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         281 HisCloCysAsmiloAspCluValigsAsmValigraPheigsAsmPheilorroPheMet 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          754 CATGAATGTAATATAGAIGAGGIGAAAAATGTITAITITGAAAAATTITATAGCTITTAIG 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 AshSert.cuGlyt.cuValThrSerAshClyt.cuProGluValGluAshtkuScrtysArg 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      321 TyrdludlaileTyrLeaLysAsnLysAspLeaAspAlaArgLeaPheLeuAspHisAsp 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67 INTRIPATION PROPERTION FOR CONTRACTOR CON
                                                                                                                                                                                                                                                                                                                                                                                                                                                     41 AsplæuProLeuValArgiæuGluPheGluGluIhrGluGluProAspPheIhrAlaLen 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 CysGlniysLeuLysTleProAspHisValArgGluArgAlaTrpLeuThrTrpGluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                  1 MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21 ProAlaProProProProProProGludiuAspProGludiuAspSetGlyProdlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tourer atire:
Mismatches:
                                                                                                                                                                                                                                                                                                     US-(04-026-45424A-7 (1-428) x US 09 466-522 40 (2 3461)
          Matches:
                                                                                                                                                               Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4605.50
46.668
96.668
                                                                                                                                                %
                                                                                            Best Local Similarity:
Opery Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            538 -----
                                                   Percent Similarity
          Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ¿ì
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>4</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \ddot{s}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ä
```

2	874	HITTELLITTELLITTELLITTELLITTEGATCATGAT 93
5 3	14.1	HIACGThCPCOACGLYSSEC 34 
C.7 135	36.1 534	hrProValArqihrValMetAsn 38 
5 g	381 1054	crAspClnProScrCluAsnLcu 4
5 <del>2</del>	401	BLUSELTTELEGILGSARGVALLGS 42 
5 3	421	ValGlyGlnGlyCysValGlu 4 
5 G	12.84	yrlyrangvalMetGluSerMet 4 
40.2	461	4
5 g	481	
0. 10. 10.	501	
5 3	521	u
5 3	541	£
5 G	56.1	ob Leurhairpteuser Aspser PreteinupheAspteu Hetyschuser Lysaspargfu. 589 HELLITH HELLITH HELLI
S 3	581	£
5 3	5.01 1714	The Alabasa phothy used of the Oval Angson Protystys (1986) year the The 620 HILL HILL HILL HILL HILL HILL HILL HIL
5 ±	521	- 2
8 3	1.4.1	Profesil ysserthirserfeuserfeusephetyri ystysvaltyrargreuahatyrfeu (660) 114 till 14 till 15 till 14 till 14 till 15 till 15 till 15 till 16 t
5 3	66.1 1894	٠
25	Ē	TrptbrieupbeginHistbrieuglnAsolutyrGluteuMetArqAspArgHisteu 700 Ettirillillillillillillillillillillillillil

```
1954 TGGACCCTTTCCAGGACACCCTGCAGAALGAGTATGAACTCATGAGAGACACATTIG ZHT3
                                2314 GGAGGGAACAFCTATTTCACCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTGGCA 2373
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2374 ACACCAACAAAAAATGACTCCAAGATCAAAATCTTAGTATCAATTGGTGAATCATTCGGG 2433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2614 CTGGCAGAAATGACTICTACTCGAACACGCAAAAAGCAGAAAATGAATGATAGCATG 2673
                                                                                                                                                              741 ArgValLeuIleLysGluGluGluGluTyrAspSerIleIleValPheTyiAsuSerValPhe 760
                                                                                                                                                                                                                              761 Met.GlnArqLeuLysThrAsnIleLeuGlnTyrAlaserThrArqProProThnLeuSer 780
                                                                                                                                                                                                                                                                                                                                                         841 ThrSerGluLysPheGlnLyslleAsnGlnMetValCysAsnSerAsFAruValLeuLys 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       861 ArgSerAlaGluGlySerAsnProProLysProLeuLysLysLeuArgPheAsplleGlu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    881 GlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSerLysPheGluGlnLys 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901 LeuklachumetThrSerihrArgThrArgmetGhiysChiysMetAshAspSermet 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Benedict, William F.
Zhou, Yuah
Three OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SHIPPESSOR PROFEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Arneld, White a legker
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: 18M PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2674 GATACCTCAAACAAGGAAGAGAAA 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 77210 4433
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                921 AspThrSerAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-469-522-30
; Sequence 30, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 51 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Patent No. US20020151461A1
; CENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Houston
STATE: 1X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 7
                                                                                                                                                                                            q
                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                          aga
                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                 ŝ
                                                                q
                                                                                                                             q
                                                                                                                                                              ŝ
                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó
```

```
LysGluLeuTrpGlyIleCysIlePheIleAlaAlaValAspLeuAspGluMetSerPhe 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116 ThrPhethrGluLeuGlnLysAsnileGluIleSerValHisLysPhePheAsnLeuLeu 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           190 ACTITIACIGAGCIACAGAAAAACAIAGAAAICAGIGCCATAAAITCTIIAACTIACTA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            38 LysGlufleAspThrSerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyr 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   356 AspValLeuPheAlaLeuPheSerLysLeuGluArgThrCysGluLeuIleTyrLeuThr 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        470 CAACCCAGTAGTTCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGG 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196 HeibrichenkeumlausschydluValLeuGinMetGlumspaspieuValileSer 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          214 PhedluLeuMetLeuCysValLeuAspTyrPheIleLysLeuSerProProMetLeuLeu 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AspthothralalcuCysCintySteutySllcProAspHisValArgGluArgAlaTrp 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
SUFTWARE: Patentin Release #1.0, Version #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HS 09-026 459A 2 (1-928) x US 09 469 522-30 (1 3392)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches:
                               APPLICATION NUMBER - 09,004469,522
FILING DAIE: 22 Dec-1999
CLASSIFICATION - 400knowns
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches:
                                                                                                                                                                                            REFERENCE/TOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                              SEC ID NO. 30.
                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09,7026,459
                                                                                                                                                                         REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: (ELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                   LENGIH: 3392 base pairs
                                                                                                                       FILING DATE: <Unknown>
                                                                                                                                        ATTORNEY / AGENT INFORMATION:
                                                                                                                                                          David W.
                                                                                                                                                                                                                                            TELEFAX: 512/474-7577
INF.EMATION FOR SEQ ID NO: 30:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: single
              CORRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4499.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.008
                                                                                                                                                                                                                                                                                                                                                         ToPoLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93.798
                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
                                                                                                                                                          NAME: Hibler,
                                                                                                                                                                                                                                                                                                                                                                                                               1. YOU 1. ON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aliquament Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                           US 09 469-522-40
                                                                                                                                                                                                                                                                                                                                                                         FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ¥.84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>></u>,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
```

```
1210 GTANTGGANTCCATGCTTANATCAGANGANGAGAGATTATCCATTCAATTTTAGCAAA 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1270 CTFCTGAATGAPAAFITITFATATGTFTATATATGASCFTFTTSAGGTTGTAATG 1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1390 IGGATICIGAAIGIGCITAATTTAAAAGCCITIGAITITIACAAAGIGAICGAAAGIIII 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1450 ATCAAAGCAGAAGGCAACTTGACAAGAAATGATAAAAAATTTAGAAGGATGTGAACAT 1509
                                                                                                                                                                                                                                                                                                                             416 LeutysargValtysAspileStyTyrHePhetysStotysPheAlatysAlaValCty 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                438 GlodlyCysValGlufleGlySerGloAraTyri)sLeuGlyValArqLeuTyrAra 455
                                                                              256 GlyGlnAsnArgSerAlaArgIleAlaLysGlnLeuGluAsnAspIhrArgIleIleGi: 275
                                                                                                                      610 odigasaagassastelassestasseaaasaastastastastastastastastastistissa 669
                                                                                                                                                                                                                                                                                                                                                                                                                                        910 ACACCACGAAAAAGIAACCIIGAIGAAGAGGIGAAIGIAATTCCICCACACACACAGII 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  376 ArgThrValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnSerAlaSerAspGln 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     396 ProSerGluAsnLeulleSerTyrPheAsnAsnCysThrValAsnProLysGluSerIle 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 456 ValMetGluSerMetLeuLysSerGluGluGluArqLeuSerIleGlnAsnPheSerLys 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  476 LeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMet 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   496 AlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhePro 515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    516 TrpIleLeuAsnValLeuAsnLeuLysAlaPheAspPheTyrLysValIIeGluSerPhe 535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       576 SerLysAspArgGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuPro 595
!:gsG]aDroTgt]gsT8tAlaVal1]cProl1cAsnG}yScrProArgTh ProArgArd - 255
                                                                                                                                                                                                                                                                                                                                                                                                                  336 PheLeuAspHisAspLysThrLeuGlnThrAspSerIleAspSerPheGluThrGlnAra 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        556 ArgileMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeufleLysGln 575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      596 LeuClnAsmAsnHisThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLys 615
                 670 GTTCTCTGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAAT
                                                                                                                                                                                                                                                296 The HefrenhemetAsmSeri.euGlyLeuVallhrScrAsmGlyLeuPainValGlu
                                                                                                                                                                                                                                                                                        736 ITTALACCITITATGAATICICITGGACTIGTAACAICTAAIGGACTICCAGGGTTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 356 Thribrody glyysforasniculaspolugiava lashvali lebrobrodis thribroval
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 536 HelysaladludlyasnLeuThrargGluMetHelysHisLeuGluargCysGluHis
                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                5.
                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                       DP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
776 Proprothic Probable of Peronis HeproArgserProtyrLysPheProserSer 795 HELLI 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1870 TIAGAACATATCATCIGGACCCIIIICCAGCACACCCIGGAGAAIGAGIAIGAACICAIG 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2050 TAGGAGACATTCAAAACGTGTTTTGATCAAAGAAGAGGAGTATGATTGTATTAGTATTATTC 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 500 GGTGAATCALFCGGGAACITCTGAGAAGTTCCAGAAAATAAATCAGATGGTATGTAACAGC 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296 ProteinarallebrodlyStyAshileTyrileSerProteutysSerFroTyriysile 815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8.66 GlydlagerPhadlyThrSerGlaLysPhedlaLysTheAsnGlaMetValCysAsnSer 855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               896 EysPheGladlaLysLeuAlaGluMetThrSerThrArqThrArqMetGlaLysGlaLys 915
                                                                                                           616 Eysülyserihi PhrarqValAsuSerihi AlaAsnalağlu;hirGluAlaThrSerAla 635
                                                                                                                                                                                                                                                      646 PheGluThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyr 655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   676 Lengtudist fettetrefbrieurbegindistbrieuGinAsnGlutyrGluizeuMet 695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              696 ArgAspArgHisLeuAspAltileMetMetCysSorMetTyrOlyIleCystysVallys 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               736 GinGlufhrPheLysArdValLenHeLysGluGluTyrAspSerHeHeValPhe 755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         816 SerGluGlyLeuProThrProThrLysMetThrProArqSerArqIleLeuValSerIle 835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                876 ArgPheAspIleGluGlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSer 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2590 ATGAATGATAGCATGGATACCTCAAACAAGGAAGAAAA 2628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             916 Met Ash Asp Set Met Asp 1 hr Set Ash Lys Gludlulys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 46, Application 08/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. USZUDZU151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US 09 469 522 46
                                                                                                               5
                                                                                                                                                                                                                                                                                                                           =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \frac{2}{3}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                        \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ć
```

```
81 ValSerSerValAspClyValLeuClyClyTyrlleClnLysLysLysTytTuleatnpClyTyrlleClnLysLysLysTytTuleatnpClyTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21 ProAlaProProProProProProJuGluGluAspProGluGluAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41 AsptouProtouValArgtouGluPheGluGlufhaGluGluProAspPhethrAlateu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 CysGlnLysLeuLysIleProAspHisValArgGluArgAlaTrpLeuThrTrpGluLys
Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASIOMA 10NGR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-026-459A-2 (1-928) x US 09 469 522-46 (1-3377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches:
                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                  CORRENT APPLICATION DATA:
AFFLIGATION NUMBER: 05/69/469,022
FILING DATE: 22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels:
                                                                                                                                                                                                                                                                               COMPUTER: IRM PC Compatible OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: 7.2613
SEQUENCE DESCRIPTION: SEQ ID NOT 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRALION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: <Unknown -
                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 3377 base pairs
                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: *Unknown.>
AITORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                           STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nucleic acid
                                                                                NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93.538
93.438
92.868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4454.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear
                                                                                                                                                                                                                        77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/ALY: CDS
                                                                                                                                                               CllY: Houston
                                                                                                                                                                                                       COUNTRY: USA
                                                                                                                                                                             STAIE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-469-522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 င်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>ရ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
```

ie S	191		120 366
194	7	CINITYSASDITICS INTERCENTIAL SPENCE AS NICOLOGICAL SASDITICAL SPENCE AS NICOLOGICAL SASDITICAL SPENCE AS NICOLOGICAL SASDITICAL SPENCE AS NICOLOGICAL SPENCE AS NICOLOGICAL SASDITICAL SPENCE AS NICOLOGICAL SASDITICAL SPENCE AS NICOLOGICAL SPENCE AS NICOLOGICAL SASDITICAL SPENCE AS NICOLOGICAL SPENCE AS NICOLOGICA SPENCE AS NICOLOGICAL SPENCE AS NICOLOGICA SPENCE AS NICOLOGICA SPENCE AS NICOLOGI	140
ھ	167	CAGAAAAACATAGAAATGAGTGTGCATAAATTGTTTAACTTAAAAAAAA	426
is 2	14:	SerThriysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspValLeuPheAla	160
3	4	ACTACL AND AND THE MAINTENANCE OF THE ANGRACIA I GALLOT TOCK.	Q (
	<u> </u>	LOUFERSANT SEA AND LAND THE TYSTOLD FOLLOWY LOUFING INTERESSET SETS TO THE FILL HILL HILL HILL HILL HILL HILL HILL	180
:	<u>x</u>	HeserthrölutteAsnScrAlateuValteuLysValSerTrpHethrPheteuteu	200
ند	CF3	ALC:	549
; <u> </u>	701	AlaLysGlyGluValLeuGlaMetGluAspAspLeuValIleSerPheGlaLeuMetLeu	220
ı.	<del>*</del> *:		549
>-	221	CysValleuAspfyrPhellelysLeuSerProProMetLouLaulysGluProTyrLys	240
-	* <b>*</b>		549
2**	241	ThralavallleProlleAsnGlySerProArgThrProArgArgGlyGlnAsnArgSer	260
ے	0,50	GIRGGIGTIATACCCATTANDGTTDARCTTGAACACCCAGGGGAACTCAGAACACAGGT	609
ئد جد	261	AlaAra  eAla  ys/  b  AshAspTbrArg  of  uVa  Leu/ys  ys  uVa   a	Ů×:
2	2 :	GCACGGALAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAA	0 0
شد:	281 670	Hiscludysasnildaspoluvalogassvaltyrbelgasnrheildflochdadet 	300
144	£ 5	AshSetTeadTyteaValThrSerAshClyteuProGluValGluAshLeuSerTysArg	320
	) <del>-</del>	ANTICLETTINGAR, THE LAM, A LETAM LEGAL, THE MANAGET INDAMARY FOR THE TANAGEM. THE TOTAL THE TANAGEM TO THE TANAGEM.	η ( Σ Σ
تد ہ	17,	A FORTING THE FORT CONTROL OF STATEMENT OF THE FORTING STATEMENT OF THE FORT OF THE FORTING STATEMENT OF THE FORTING STAT	34.0 84.9
شد احد	141 85	441 Lysthileugliithraspsertleaspserphegluthrginargthrproarglysser 360 	360
14	£6.7	AshleuAspCluCluValAshVallLePrOPrOHSThrProValArgThrValMetAsh	380
تہ	<u>.</u>	AACCI I GA I GAAGAGGI GAATI GTAATI TOO I COACAGAGTI COACTIAGAGTI ATAAC	696
> £	4 × 1 0 × 2 × 2	ThrileginGinLeuMetMetIleLeuAsnSerAlaSerAspGinProSerGluAsnLeu . 	400
: :-		[] eser [vrPhoAsaAsaCvs] hrVa [AsaPro] wsG[uSer] [eleutusArdva] [ws	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
شد ۰	10.40	ATTECTATTTTAACAACTGCACACTGAAAGAAAGTATACTGAAAAGAAAG	1089
1-4	1.14	ASPITECTYTYFTTEPPELYSCTULYSPECATALYSATAVALCTYCINCTYCYSVALGTU- TELLTITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	1149
	 •‡ •‡	Thenly sersinaryTyrLycLeuslyValArgLeuTyrTyrArqValMetGluserMet.	460
ت		HTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	1209

2230 CGAGGGAACAFCTATATTTTAGGGCTGAAGAGTGCGATATAAAATTTGAGAAGGETGGGA, 2289 1390 CITAATITAAAAGCCIIIGAIIIIACAAAGIGAICGAAAGIIIITAICAAAGCAGAAGGC 1449 1330 AGTACATCTCAGAATCTIGAITCTGGAACAGAITG1C11TCCCAIGGAI1C1GAAIG1G 1389 1570 GGACCAACTGATCACCTTGAATCTGCTTGTCCTTAATCTTCCTCTCCAGAATAATCAC 1629 1750 CCATIGAAATCTACCTCTCTTCACTGTTTTATAAAAAGTGTATCGGGTAGCTAICTC 1809 2110 AIGCAGAGACTGAAAAAAAATATTTTGCAGTAIGCTICCAGCAGGCCCCTACCTIGICA 2169 52) (cuAshtoulysAlabbeAspBeiyrlysValllocluSernbeitelysAlablubly 540 461 LealysSorGluGluGluArglouSortleGlnAsnPheSerlysLealeuAsnAspAsn 480 481 IlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValWalMetAlaThrTyrSerArd 500 541 AsnLeuThrArgGluMetileLysHisLeuGluAraCysGluHisArglleMetGluSer 560 581 GLyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGlnAsnAsnHis 600 621 ArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys 640 641 ProLeutysSerThrSerLeuSerLeuPhefyrLystysValTyrArgleuAlaTyrLen 660 741 ArgValLeuIleLysGluGluGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe 760 781 ProlleProHislleProArgSerProTyrLysPheProSerSerProLeuArgllePro 800 921 ThrProThrLysMctThrProArgScrArgHet.cuValSerHeGlyGluSerPheG.y 840 801 GlyGlyAssileTyrileSerFroLeaLysSerFroTyrLysIleSerGluGlyLeaPro 820 1630 ACTGCAGCAGATATGTATCTTCLCCIGIAAGAICTCCAAAGAAAAAAGITCAACTAG 661 Argi@uAsnThri@uCyschuArgLeuSerGluHisFrcGluLeuGluHisIleIle 761 MetGinArgleulysThrAsnTleLeuGhTyrAlaSerThrArgProProThrTeuSer 681 IrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArgAspArqHisLeu 501 SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrpIleLeuAsnVal 601 ThralaalaaspMetTyrLeuSerProValarqSerProLysLysLysClySerThrThr ٠<u>٠</u> 9 QO ĝ qq οp Db ö ò ò õ ć ΟŅ

```
HELLELLELLE FELLELLE FELLELLE FELLELLE FELLE FEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841 ThisterdittysphedintysileAsndinMetValCysAsnSerAspArgVallentys 860
                                                                                                                                                                                                                                                                                                                                 861 ArdSerAluGluGlySerAsuProProLySProLeuLysLysLeuArqPheAspIleGlu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          881 GlySerAspGluAlaAspGlySerLySHisLeuProGlyGluSerLysPheGlnGlnLys 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901 LeuAladluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Benedict, William F.
Zhou, Yunli
IIILE OF INVENTION: MODIFIED RELINOREASTOMA IUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA: AS209/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCEZIOCKEI NUMBER: UIXC:506
HELECOMMUNICALION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: 18M PC compatible OPERATING SYSTEM: PC-DOSZMS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: 7.,2619
SEQUENCE DESCRIPTION: SEQ 1D NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRALLON NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILLING DATE: 22 Dec-1999
CLASSIFICATION: Onknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2590 GAFACTORANAGAAGAAGAAA 2513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              921 AspThrSerAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 48, Application 08/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFRONE: 512/418 4000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGIH: 3484 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: "Unknown," ATTORNEY ZAGENT INFORMATION: NAME: HIBLEE, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INPORMATION FOR SEQ ID NO. 4883
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 77210 4433
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: XIL, HODG JI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PoPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. USZUGZ0151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cliff: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US 09 469 522 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09 469 522 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FESTILT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
```

```
221 CysValLeuAspTyrPheIleLysLeuSerProFroMetLeuLeuLjsCyluProTyiLys 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 ThrAlaValileProficAsnGlySerProArqJhrProArqArqArqGlyGlnAsnArqSer_260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             261 AlaArqileAlaLysClmLeuCluAsnAspibrArqileTleCluValLeuFysLysGlu_zRu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7 15
                                                                                                                                                                                                                   101 IleCysIlePheIleAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 GlnLysAsnileGlufleSerValHistysPherheAsnLeuLysGlufleAspthr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201 AlatysGlyGluvalLeuGlnMetGluAspAspLeuVallleSerPkeGlnLeuMetLeu 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81 ValSerSerValAsp61yValLeuGlyGlyTtTTTeGInLysLysLysTuLeuTrp61y Tuu
                                                                                                                                                                                                                                                                                                                                                                                               487 CTCTTCAGCAAATTGGAAAGGACATGTGAACTTALALALTGACACAACCAACTAGTTCG 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301 AsnSert.cuGlyt.cuVallhrSerAsnGlyt.cuProGluValGluAsnt.cuSertysArq 320
                                                                                                                                                                                                                                                              41 AspteuProLeuValArqLeuGluPheGluGluThrGluGluproAspPheThrAlalzeu 60
                                                                                                                                                                                                                                                                                                                     7 ATGCGGCCAAAACCCCCGAAAAAGGGCGGCAACGCCGCCGCGCGCGCGAAAACCCCG
                                                                                                                                                                                                    21 ProAlaProProProProProProGluGluAspProGluGluAspScrGlyProGlu 40
                                                                                                                                           181 HeSerThrGluffeAsnSerAlaLouValLouLysValSerIrpHeThrPheLouLou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     281 HisGluCysAsnlleAspOluValLysAsnValTyrFPactysAsnPhalleProFhaMet
                                          Sonservative:
                                                                                                               US-09-026-459A-2 (1 928) x US 09 469 522 48 (1 3383)
                                                        Mismatches:
                             Matches:
                                                                         Indels:
                Lendth:
                                                                                       Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4447.50
                                         91.868
                                                                      92.71%
                                                        Hest Local Similarity:
                                       Pergent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7 15 -----
Aliqnment Scores:
                                                                     Query Match:
               Pred. No.:
                             Score:
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                ć
                                                                                                                                                                                                                                                                                                                        ć
                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
```

421 TyrchuchulleTyrLeuLysAshbysAspLeuAspAlaArgLeuPheLeuAspHisAsp 340 HITHHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	nLeu                               	CATG 1 CATG 1 CATG 1 CAAC 1	nval 5        rcrc    crc          vcc	961u 5 1111 AGAA 1 nHis 6 1111 10AC 1 TTChr 6	MravalasnSerthrAladanAlagluThrGlaAlaThrSerAlaPheGluThrGluLys 640  11111111111111111111111111111111111
1 Tyr. 1 111 1 Lys 1 111 6 AAC	1 TER 6 AG1 1 116 6 AT1 6 GAT	6 AIII 6 AIII 7 (11) 7 (11) 6 AIII	1 Ser 111 111 6 AG1 6 AAC 6 AAC	1 Leur   1 Cl   1 Cl	1 Ara 1 Ara 1 Pro 5 CCI 6 CCA 1 Ara 6 CCG
3.5 4.8 8.5 3.6 1.1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	11	0.00 1.34 1.34 1.34 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.35	10.72	6.4 5.4 13.5 8.6 18.18
× 0 × 0 × 2		3 8 3 8 5 8	5 2 5 6 5 d	3 8 3 8 8 8	ें <sup>के</sup> के स के ती

```
1936 GACCAAATTATGATGTGTTTCCATGTATGGCATATGCAAGTGAAGAAGAATATAGACCTTAAA 1995
                                                                                                                                                                                              2116 ATGCAGAGACTGAAAACAAATATITGCAGTAGCTTGCAGCAGGGCCCQACTTGTCA 2175
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2296 ACACCAACAAAAATGACTGCAAGATGAAATGTIAGTALGAATTGGTGAATGATTGGGG 2355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2416 AGAAGTGCTGAAGGAAGCAACCCTCCTAAACCACTGAAAAACTAGGCTTTGATATTGAA 2475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2234 OGAGGAAGAPGTATETTGAGGGGTGAAGAGPGCGATATAAAATTTGAGAAGSTGTGGGA 2295
                                                        761 MetGlnArgLeulysThrAsnlleLeuClnTyrAlaSerThrArgProProThrLeuSer 780
                                                                                                                                                                                                                                                                                                                                                          901 LeadlaGlumetThrSerThrArgThrArgMetGlnLysGlnLysMetAshAspScrMet 920
                                                                                                                                                                                                                                                                                                                                                                                                                    821 ThrProThrLysMetThrProArgSerArg[leLcuValSerIleG[yGluSerPheG]y 840 \,
                                                                                                                                                                              741 ArqValLeuIleLysGluGluGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Benedict, William F.
Zhou, Yunli
IIILE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2596 GATACCTCAAACAAGGAAGAAA 2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     921 AspThrSerAcnLysGludluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 42, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: P.O. Box 4433
CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SHOUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Patent No. US20020151461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             118-09-469-455-45
                                                                                                                                               00
                                                                                                                                                                                                                                                                                                                                                           ģ
                                                                                                                                                                                                                                                                                                                                                                                      Q(1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                  ŎΣ
                                                                                                                                                                                                                                                                                                                                                                                                                     Οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6
```

```
TELLETELETE TELLETE TA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    81 ValSerSerVaiAspG1yValLenG1yG1y1yr11eG1nLysLysLysG1uLeuTrpG1y 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 GlutysAsulleGluIleSerValHisLySPhePheAsuLeuLysGluIleAspIhr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141 SerthriysValAspAsnAlaMetSerArgi.euLeuLysiysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101 HebyshophelleAlaAlaValAspLouAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161 LeuphesertysteuGluArglhr@ysGluteulleTyrLeuThrGlnProSerSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2] ProAlaProProProProProProCluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 CysGlnLysLeuLysIleProAspHisValArqGluArqAlaTrpLeuThrTrpGluLys 80
             OUTHALING SYSTEM: PO DOS/MS DOS
SOFTWAKE: Patentin Release #1.0, Version #1.40
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08 09 025 459A-2 (1-928) x 95 09 469 522 42 (1-3347)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
                                                                              APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 01XC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (OCALION: 7..2583
SEQUENCE DESCRIPTION: SEQ ID NO: 42:
                                                                                                                                         PRIOR APPLICATION DATA;
APPLICATION NUMBER: 09/026,459
FILMS DATE: «UKNOWI:
ATTORNEY/ASENT INPORMATISM
COMPUTER: TRM PC COmpatible
                                                                                                                                                                                                                        NAME: Hibler, David W. REGISTRALLON NUMBER: 41,071
                                                                                                  FILING DALE: 22-Dec-1999
CLASSIFICATION: + Unknown.-
                                                                                                                                                                                                                                                                                                                                                                                      DENGTH: 847 base pairs
TYPE, no belo and
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                            TELEPHONE: 512/418-3000
TELEFAX: 512/424 7577
                                                                                                                                                                                                                                                                                                                                                 INFORMALTON FOR SEQ ID NOT 42:
SEQUENCE CHARACHERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4401.50
92.468
92.468
91.768
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
Seery Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US 09 469 522:42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \circ7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ă
```

	<del>2</del>	342		745
	ć	181	IleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThrErenLeu	707
	qo	143	TCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGAACATTTTTTTT	6,6,4
	O.Y.	201	20] AlalysGiyGibVailceGibMetGimAspAspLeuValleSerPheGibLeuMetLeu 220 	220
	3		AT THE CONTROL OF THE	,
	<u> </u>	460	- 05844 LEGASPI ) FFRELICE/CIA-LACETT OF CARGO CALLACA, ACTUAL OF STATEMENT THE STATEMENT OF STATEMENT THE STATEMENT OF STATEMENT THE STATEMENT OF S	0.40 1.13
	Ś	241	ThrAlaVallleProlleAsnGlySetProArqThtProArqArqClyCluAsnArqSer	760
	3	520	ACAGGISTATACCCATTAATGGTTCACCTCGAACACCAGGGAGGTGAAAACAGG	67.9
	$^{\circ}_{Y}$	261	AlaArg Cohala yettelonguasnaspeharat belocinya Leegystystia	0.80
	3	580	GCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAA	6.49
	ć	281	HisGluCysAssIleAspGluValLysAssValTyrPhetysAsnPhelleProPheMet	400
	qu	640	CATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATG	669
	ζŅ	301	AsnSerLeud1yLeuValThrSerAsm3lyLeuProd3uVald1uAsnLeuserLysArd	071
	qa	700	AATTGTTGTGGAGTTGTAACATCTAATGGACTTGCAGAGGTGAAAATGTTGTAAACGA	11,4
	ολ	321	TyrGluGluTeTyrLeuLysAsniysAspteuAspAldArqLeuPheleuAspHisAsp	440
	qq	760	TACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGAAAGATTATTTTTGGATCALGAT	£ 1.8
	ò	141	LysThrLeuGlnThrAspSerTleAspSerFheGluThrGluArqThrProArqLysSer	46.0
	qu	820	AAAACTGTTCAGACTGATTCTATAGACACTTTTGAAACACAGAACACACAGAAAAACT	879
	ć	361	AsnLeuAspGluGluValAsnVal11eProProHisThrProValAruThrValMetAsn	Ω <b>3</b>
	qq	880	AACCTTGATGAAGAGGTGAATGTAATTCCTCCACACACTGCAGTTAGGACTGTTATGAAC	616
	Οy	381	Thr HeGInGInteuMetMet HeleuAsusorAlasorAspGInProSerGluAsnLeu	400
	qq	940	ACTAICCAACAATTAATGATGATTTTAAATTCAGCAAGTGATCAACTTCAGAAAATGTG	666
	ςχ	401	IleSerTyrPheAsnAsnCysThrValAsnPrcLysGluSerTleLettuJysArgValLys	420
	106	1000	ATTTCCTATTTTAACAACTGCACAGTGAATCCAAAAGAAAG	1059
	ςς	421	AcpliedlyTyrilePheLysGluLysRheAlaLysAlaValGlyGlyGlyGlyGlyGluL	440
	qq	1060	GATATAGGATACATCTTTAAAGAGAATTTGCTAAAGCTGTGGGAVAGGTTGTGGAA	1115
	с'n	441	HeelyserChardtyrtysheustyvalarquentyrtyrtqvalMerchuserMer	460
	qq	1120	ATTGGATCACAGGGATACAAACTTGGAGTFGCTTGTATTACCAGTAATGGAATCATG	1179
	ςò	461	LeutysserdingligtuArqteuserTletlinganPheserTysteuteuAsnAspAsn	480
	0P	1180	CITAAATCAGAAGAAGAAGAITAIGCAITGAAAAITITAGCAAATTICTGAATGACAAC	1239
	δ	481	IlePhenisMetSerLeuLeuAlaCysAlaLeuGluValWalMetAlaThrTyrSerArg	500
•	qq	1240	ATTITICATARGECTTTATTGGCGTGGGGCTTGAGGTTGTATGGCCACATATAGCAGA	1,5,7,1
	δ, ολ	501	SerThrSerGInAsnLeuAspSerGIyThrAspLeuSerPheProTrpTLeCeuAsnV31 	520
	3.	000	WITH THE WAYNE FRANK FRANK WALLEY TILE CARSALL FRANKISK	103
:	င် :	521	LeuAsnLeuLysAlaPheAspPheTyrLysValIleGluSerPheIJeLysAlaGluGly	540
	Q	3.60	CTTAATTTAAAAGCCTTTGATTTTTACAAAGTGAAAGTTTTTATGAAAGAAGGC	14.15

```
1.2. CCALLGAAALCLACCTCTTCACTGTTTATAAAAACTGTATCGCTAGCCTATCTC 1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1400 ACTGCAGGAGATATGTATCTTTTTCCCTGTAAGATCTCCAAAGAAAAAAAGGTTCAAGTACG 1659
                                                                                                                                                                                                                                                                                                  1763 COTOTABATTOTACTOCABATGCACACACCAACCTCAGCCTTCCACACCCAGAAC 1719
                                                                                                                                                                                                                                                                                                                                                                                                                    1900 GACCAAALTATGALGTGCALGTAFGGCATATGCAAAGTGAACAATATAGGTTTAAA 1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2140 CCAATACCTCACATTCCTCGAAGCCCTTACAAGTTTCCTAAGTTCACCTTACGAATTCT 2199
                                                                  561 LeuAlafrplieuSerAspSerProLeuPheAspLeufleLysGluSeri.ysAspArgGlu 580
                                                                                                                                   54) 31yProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGlnAsaAsnHis 600
                                                                                                                                                                                                                                                                  6.21 ArqValAsuSerThrAlaAsuAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys 640
                                                                                                                                                                                                                                                                                                                                     641 ProLeuLysSerThrSorLeuSerLeuPhoTyrLysLysValTyrArqLeuAlaTyrLeu 660
                                                                                                                                                                                                                                                                                                                                                                                                    161 ArgieuAsnihrbeuCysGluArgieuLeuSerGluHisProGluLeuGluHisIlelle 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     741 ArqVall.culletysGluGlufyrAspScrile!!eValPheTyrAsnScrValPhe 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       M41 ThrseiClufysPheGlnfysTleAsnClnMetValCysAsnScrAspargValLeufys 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      581 IrplhrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArgAspArgHisLeu 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          821 ThrProThrLysMetThrProArqSerArglleLeuValSerlleGlyGluSerPheGly 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        861 ArgSerAlaGluGlySerAsnProProLysProLeuLysLysLeuArgPheAsplieGlu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       вит GlyserAspGluAlaAspGlySerLycHisLeuProGlyGluSerLysPaeGlnGlnLys 900
941 AsbleuthrArgGluMetlleLysHisLeuGluArgCysGluHisArglleMetGluSer
                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \frac{1}{2}
```

```
901 LouAlaGluMotThrScrThrArgThrArgMotGlnLysGlnLysMotAsnAspScrMcf 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99 TrpGlylleCysllePhelleAlaAlaValAspLeuAspGluMetSerPhelhrPhelhr 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79 GlutyeValsorsorValaspGlyValLeuGlyGlyTyrileGlutyaLyaLyaGluteu 96 [HIHHHHHHHHHHHHHHHHHHHHH] 0 GAGAAAGTTTCACACAAAGAAAAAGAACTS 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Natentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-026-459A-2 (1-928) x US 09 469-522 32 (1-3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE, Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/INCRET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US, 55, 469, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Longth:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: 7..2559
SEQUENCE DESCRIPTION, SEQ (DINC. 32)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAMÉ: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hu, Shi Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <Unverse volume 
                                                                                                                                                                                                                                                                                             2560 GATACCTCAAACAAGGAAGAGAAA 2583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 22-Dec-1999
CLASSIFICATION: <CRKTCMT>
                                                                                                                                                                                              921 AspThrSerAsnLysSluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 32, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APITLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4367.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  91.048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. US2002015146
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOPTWARILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-469-522 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  perr Match:
          ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
```

ŝ	7.0	ORGANIA PER	129
5 3	11.9	ObutonClutysAsultechulteserValHistysPhePhoAsulteuleeUxysChulter	138
40 (3)	130	ASPTHERM TO A THE ASPACE AND A SOLAR TOLOURYS SEAS BY A SPANTED TO A SPANTANCE OF A SPANTANCE AND A SPANTANCE	158 .
oy ge	159 250	PheAlateupheSertysteuGtuargThreysGinteurteTyrteurhrdInProSer 17 FEELLETHEELHELHELHELHELHELHELHELHELHELHELHELHEL	178
40 40	179	SerSerIleSerThrGlulleAsuSerAlaLeuValLeuLysValSerTrpIleThrPhe 19 	198 369
40 10F	199	LeutenalatyschystavatteustinmetstuaspaspteuvalliteserPhesting 2 	- 2
2 g	4.40	Met Leuc'ys Valtanas ptyr Phet Letys Leus er Propromet Leuteutsschuber 2 	⊸r ⊃0
5 <del>2</del>	490	TyrtysThrAlaValIII+ProIII+AsnGlySerProArgThrProArgArgGlyGlnAsn 2   11	v) ₹
5 g	259 550	Ardsoraliar of to a figure of the state of the field of the field of the filler of the	278 609
5 q	279 610	LYSOLUHISCHUTYKAROLUKASPOLUVA ITYSAROVATTYKUNCHYRASOPPOLIOPEK 	J 9
25 G	64.0	PheMertAsnSerLeuGlyLeuValThrSertAsnGlyLeuProGluValGluAsnLeuSer 3 	7
5 G	7.50 7.50	UASP	m oo
5 g	7.90	HESSELYSTIN LENGLED ASPSOCTHESSES FREGLED IN TO THE HELLING THE STATE OF THE STATE	158 849
35 g	45.34 85.00	Lyssetasnie-uaspeteigiuvalasuvaltieProprofiisthrprovalargthrval 	378 909
55 139	479 910	Met Asid hit field influendet Met Fretenbarisera Laser AspólinProserffu 3 1177 fill fill fill fill fill fill fill fi	348 969
45 25 26	899 970	AsittenthesertyppheasiasicysthrValasiprotyschosertleteitysarg 4 1711 HTHTHTHTHTHTHTHTHTHTHTHTHHTHHTHHTHHTHHT	418
5 2	415	Vallyshard Lestytyr (Lephelysoladyopheraladyshata) oldolydys 4 FELLELLELLER HELLELLELLELLELLER HELLELLELLELLELLELLELLELLER HELLELLELLELLER HELLELLELLER HELLELLER HELLER H	438 1089
27 15b	433	VALCHALLEGIJSETGIGAFGIJTICSGARGIGVALAFGIGULJTITTAFATGVALMETGIJA 4 	<u>.</u>
7.0	454	SerMettaufysSerGluffüllukrglaviserileGinAsniheSeriysLeufeuAsn 4* 	

વ	1150	PCCATGCTTAAATGAGAAGAAGAAGATTATPPATTGAAAATTTTAAAAATTGTGAAAT
ć	479	AspAsnilePheHisMetSerLeuLeuAlarysAlaLeudluValWalMetAlaThTyr
DP	1210	GACAACATTTTCATATGTCTTTATTGGCGTGCGTCTTGAGGTTGTATGGCCATATAT
Óγ	499	SerArgSerThrSerGlnAshlcuAspSerGlylhrAspteuserPtetrolipHeleu
qq	1270	AGGAGAAGTACTCASAAFCTTGATTCTGSAACAGATTGTCTTTGTTTGTTTTTTTTTT
ς	519	AssValLeaAssLeutysAlaPbeAspDaTytLysValHedisSerDathetysAla
qq	1330	AATGEGETTAATTTAAAAGCCTTTGATTTTTAAAGTGATCGAAAGTTTTALCAAAGCA
ó t		GluGlyAsnLeuThfArgGluMetIleLysHisLeuGluArgCysGluHisArgIleMet
<u>a</u> :	1390	GAAGGCACTTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACALCGAATCATG
Š Š		GluSerLeuAlatt pleuSer AspSer ProfeeDheAspLeuffelysGluSer LysAsp 
a ò	1450	own eccutional object of careful transmitted for the property of the property of the property of the profit of the property of the property of the profit of
; <u>q</u>	1510	HITTHITHITHITHITHITHITHITHITHITHITHITHIT
ò	599	AsullisThrAlaAlaAspMetTyrLeuSerProValAiqSerProLysLystlystlySer
qq	1570	AATCACACTGCASCAGATATGTATGTTTGTCCTGTAAGATCTCTAAGAAAAAAAGGTTCA
δō	619	ThrithrargValAsuScribralaAsuAlastiothrelinalaith ScrAlathactudh
q	1630	ACTAGGGGTGTAAATTCTACTGGAAATGCAGAGAAGAAGAAGAAGAAGAGAAGAGAAGAGAAGAGAAAGAAAGAAAGAAAGAAAGAAAGAAAA
δ	639	GlnLysProLeuLysSerThrSerLeuSerLouPheTyrLysLysValTyrArqLeuAla
<b>අ</b> ධ .	1690	CAGAAGCCATTGAAATCTACCTCTCTTTCACTCTTTTATAAAAAAGTGTATTGGCTAGCC
ογ	659	TyrLeuArqLeuAsnThrLeuCysGluArqLeuLeuSergluHisProsluLeuGluHis
qq ,	1750	TATCTCCGGCTAAATACACTTTGTGAACGCCTTCTGTCTG
λο :	679	TelleTrpThrLeupbeGlnHisThrLeuGlbAsnCluTyrGluLeuMetArqAspArq
g 3	0 T & T	ALCATCLOGGACCCTTTTCGAGGCGCGCAGAGTGGGGGGAGGACGAGGAGGAGGAGGAGGAGGAGGAGGAGGA
<u> </u>	1870	
2 3	976.	CALL REPAYSORAL LATERAL BLOCK INTERFLORE AT LOCATION AND LARGE AND LATERAL LANG.  [And verybot vertical based to the Analysis and another interpretation of the Analysis and Analysis and Analysis and Analysis.]
G 6	1930	CTIAAATTCAAAAICATGTAACAGAAA AAAGAAA CHICHIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
οy	7 39	PbetgsArqVall.co.iletystiludiodlutyrAspticilletileVal.thetyrAsitter
qq	1990	
ς	759	ValPheMetGlnArqLeuLysThrAsnlleLeuchnTyrAlaSerThrArqProProThr
qo	2050	GICTICATGCAGAGACTGAAAAAAATATTTGCAATATGCTTCCATCAACAACAACAAAAAAAA
δ	779	LeuSerProTleProHisTleProArqSapProTyrLysPheProSerIserProJenArq
qq	2110	THETCHCOMINGCTCACATTCCTCCAAGCCCTTACAAGTTTCCTAGTTCACCTTACAG
ĊΔ	144	HeproGlydlyAsmitelytheserProballysSerProlythysTheserPhally
qq	2170	ATTECTGGGGGGGGGGGGCTCTGTGGGCCTCANGGGGTCCATATAAATTTCAGAAGGT
ç	819	LeuProThrProThrLysMetThrProAraSerAralleLeuValSetTieGlysDuSer
q	2230	CHCCCAACAACAACAAAABGGCHCCAAGAHCAAGAALCHTACHTACHTACHTACAAAAAA

```
2236 | HELLITH HILLITH HILLITH
                                                                                                                                                                                                                                               2.450 (TEANANANAGEGEGANGGANGCANCOTCCTANANCACIGNANANACIACGETEGAT 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2419 AIIGAAGGAICAGAIGAAGGAGAAGGAAGIAAACAICICCCAGGAGGICCAAAIIIGAG 2469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                247 - CAGAAACIGGGACAAATGACTTOTACTGGAACACGAATGAAAGGAAATGAATGAT 2529
                                                                                                                                                                                                                                                                                                                                                                                                 839 PheGiyThrserGluIysPheGloIysIleAsm3aMotValCysAsnSerAspArqVal 858
                                                                                                                                                                                                     *** LowLysArgSorAlaGlu/1/SerAsnProProLysProLowLysLysLysLeuArgPheAsp | 878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 899 GlobysLeuAlaGluMetThrSerThrArgThrArgMetGlobysGlobysMetAsnAsp 918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SHETWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/469.522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC COmpatible OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       313 SerMetAspThrSerAsuLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SECUENCE DESCRIPTION: SEQ 1D NO: 38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 22-Dec-1999 CLASSIFICATION: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 38, Application US/09469522
Patent No US/0020151461A:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGIH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTURNEY ZACHNI TNFORMATTON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 512/174 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INE KMATION FOR SEC ID NOT 38: SECUENCE CHARACTERISTICS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7...2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shi - Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                hoponody: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           รอสมหลับเรียร์ สราสมหรับพ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIAIE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "AT ION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15 09 469 522 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESIDE 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
```

```
81 Viller ServalAspoly@lleadings.ps/flaitedintpsLjddpddintclipdly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------GTCGACCTAGATGAGATGTCGTTCACTTTTACTGAGCTA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 AsnSerLeuGlyLeuValThrSerAsnGlyLeuProGluValGluAsnLeuSerLysAig 32u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161 LeupheSerLysLeuGluArgThrCysGluLeulleTyrLeuThrGlnProSerSerSer 18∪
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 256 CTCTTCAGUAAATTGGAAAGGACATGTGAACTTATATATTTGACACAACCCAGCAGTTCG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 616 CAISAAISIAAIAIAASAIGASSISAAAAAISIIIAAITICAAAAAIIIIAAGUUTIIAAG 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221 TyrGluGlufleTyrLeuLysAscLysAspLeuAspAlaArgLeu-PheLruAspHisAsp 340
                                                                                                                                               21 ProAlaProProProProProProGlaGlaAspProGlaGlaAspSetGlyProGlaG
                                                                                                                                                                                                                                                                                                                               61 CysClnLysLeuLysTleProAspHisValArgGluArgAlaTrpLeuThrTrpGluLys 80
                                                                                                                                                                                                                                                                 41 AspteuproteuvalArgteuGluPheGluGluthrGluGluProAspPhethrAidian 6.)
                                                                                                                               1 Met.ProProtysThrProArgLysThrAlaAlaIluAlaAlaAlaAlaAlaAlaAlaGluPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201 AlaLysSlySlyValLeySlnMetGlwAspAspLeuValIleSeyPheGlnLeyMetLey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281 HisCluCysAsnileAspCluVallysAsnValTyrPhelysAsnPhelleProPheMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                               101 HeCystlePhetleAlaAlaValAspLeuAspCluMetSerPhethrPhethrChulcu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67 CCGCCACCGCCGCCCCCCTCTCAG------
            001:-
             Conservative.
Mismatches:
                                                                                                US-09-026-459A-2 (1-928) x 78 09 469-522 28 (1 2323)
Matches:
                                               rdels:
                                                                                                                                                                                                                 91.70%
91.70%
        Percent Similarity:
Best Local Similarity:
Owery Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ਰੰ
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
```

شر	7.46		
> a	341	LySThtLoudlithtAspSertleAspSerPheGLuThrGLuArqThrProArqLysSer 	
× 2	46.1 835	AsritzendaspoltudiataanVallleProProHisThrProValdrgThrValMetAsn 	
35 LB	481 916	The Heel incline to Meet Meet The Leva Asis Serval a Servas politible to the Meet Hiller Acta Roband Carolanda Andrea Carolanda	
<u>ت</u>	401	HeSer PyrpheAsnAsnCysthryalAsnProLysGluSertHeLeulysargYallys   420	
× 2	4.21	Aspiledlytyrilebbetyegibtysbevlalysalavalolygindlygysvaldiu 440   HTHTHTHTHTHTHTHTHTHTHTHTHTHTHHTHHTHHTHH	
ے ہ	441	Heddyserthan gfyrlysleighyvalargleifyrfyrargvalmet ghusermet   Hillithihihihihihihihihihihihihihihihihih	
× .a	46.1	Leutyssercholluchargleuserhechasnehesertysleutebanaspasn FEHTHEFHELLITHEFHELLITHEFHELLITHEFHELLITHEFHELL CTIAAATCAGAAGAAGATIATCCATCAAAATTTTAGCAAACTTCGAAAGACAC	
> a	481	TTEPHERISMETSETREULEUMTAGSSATALEUGTUVALVATMETATATTYKSEKAFG 	
> 2	501 1276	SerThrSerGinasoLeuaspSerGiyThrAspLeuSerPheProTrpIleLeuasnVal 	
5× .a	521	52] LenasolcenysalatheaspihetyrtysvattleGluserthettetysalaGlusty 540 	
× 2	54.1	AsulauThrangduMet DelysBisLeudhuAngcysduBisangDeMetGluSer   THFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	
تد <	561 1456	LeurlatrpLeuserAspserProLeuPheAspLeutleLysGinserLysAspArgGlu 	
:s .a.	5 H I	GLYPTOLDG ASPHISLOGGIBSOTALACYSPTOLOGASBLOUPTOLGGGBASBHIS 	
5K 25	601 1576	Thralaalaaspwo tyrloosserprovalarasorprelyslyslyscholtherther HTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	
> a	6.2.1 16.46	Ar qVaTAsmSerThrAlaAsmAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLySerAlaHillillillillillillillillillillillillill	
54 A	641 1696	Professive section for Louger Louble Syries ys Valityr Argicula Hiteline Hi	
> .â	661 1756	ArdLeuAsnThrLeuCyschuArdLeuLeuSerGhuffisProGluLeuGhuffisTheTle 680 	
284	6.8.1	Trp1hrLeuphedlnHisThrLeuglnAsudluTyrdluLeuMetArqAspArqHisLeu 700	

```
1996 CGTGTTTTGATCAAAGAGGAGTATGATCTATTATAGTATTCTATAAATAVTVGGTGTTTC 2055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2176 GGAGGGAACATCTATATTCACCCTCAAGAGGAAAAAAH AAAAGTCTACCA 22 C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2236 ACACCAACAAAAAIGACTCCAAGATCAAAAIGTTAATATGAATTAGTAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAATTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1816 TGGACCCTTTTCCAGCACACCCTCCAGAATGAGTATGAACTCATGAGAGACAAATGGAAATGGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721 PheLysIlelleValThrAlaTyrLysAcpLeaFroHisAlaValGluSluThrFheLys 740
                                                                                                                                                                                                                                                                                                                                                                                                  741 ArgValLeufleLysGluGluGluTyrAspSerflelleValPheTyrAsnSerValPhe 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            761 MetGlnArgieulysihrAsnileLeuGinlyrAlaSerihrArgProProthuLeuSer 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781 ProlleProMislleProArqSerProTyrLysPheProSerSerVroLeuArqllePro 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               801 ClyStyAsmileTyrileSerProteutysSerProtyrLysTleSertlattytenPro 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         821 ThrProThrLysMetThrProArgSerArg11eLeuValSerTleGlyGluSerPheGly 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        861 ArgSerAlaGluGlySerAssProProLysProLeuLysLysLeuArqPheAspileGlu 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              881 GLYSCrAspGluAlaAspGlySerLysHisLauPtoGlyGluSerLysPhadluGinLys 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901 LeuAlasluMetThrSerThrArgThrArgMetSluLyssluLysMetAsnAspSerMet 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Honedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINGBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENTES: 51
CORRESPONDENCE ADDRESS:
ADDRESSEE, ATROID, White & Darkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2536 GATACCTCAAACAAGGAAGAAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     921 AspthrScrAsnLysCluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 34, Application US/0946952z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. US20020151461A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-469-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . :
- :
                                                                                                                                                         90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>Q</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                   ò
                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ^{\circ}_{\lambda}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĉ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
98 LeuTrpOlyIleCysIlePheIleAlaAlaValAspLeuAspGluMet.SerPheThrPhe 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             79 ACTGAGCTACAGAAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         130 ATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTA 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       158 LeuPheAlaLeuPheSerLysLeuGluArqThrCysGluLeuIleTyrLeuThrGlnPro 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    198 PhotoulouAlaLySGlyGluValLouGluMetGluAspAsplouValHeSerPheGIn 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  218 LewMetLeuCysValLeuAspTyrPheIleLysLeuSerProProMetLeuLeuLysGlu 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              248 ProTyrLysThrAlaVallleProIleAsnGlySerProArqThrProArqArqGlyGln 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   118 ThrGluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeuLysGlu 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           138 HeAspihrSerThriysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspVal 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        178 SerserSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThr 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      319 ITITIATIAGCTAAAGGGGAAAGTATTACAAATGGAAGATGATCTGGTGATTTGATTTGAG 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   258 AshArqSerAlaArqIleAlaLysGlnLeuGluAshAspIhrArgIleIleGluValLeu 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        190 TEGETEGCACTO FCAGGAAA FEGGAAAGGACAFIGEGAACTETATATATETEGACAAACCC
  .~
SUFTWARE: Patentin Release #1.0 Version #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative.
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US 04 126-455A-2 (1-928) x US-09-469-522-34 (1-3266)
                                             APPLICATION NUMBER: 927097469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches:
                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                i ongthi
                                                                                                                                            APPLICATION NUMBER: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE DESCRIPTION SEQ ID NO 34
                                                                                                                                                                                                                                          41,071
                                                                  FILING DATE: 22-Dec-1999
CLASSIFICATION: <PREDOWNS
                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 3266 base pairs
                                                                                                                                                                                       ALTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
REGISTRATION NUMBER: 4
                                                                                                                                                                     <Unknown>
                                                                                                                                                                                                                                                                                                                                     FELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                      IYPE: nucleic acid
SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                 INFURMATION FOR SEQ ID NOT 34:
                    MERENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4273.00
100.008
100.008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ToboLogy:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-39 469-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 poort Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Prod. My
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \frac{\bar{\Xi}}{\bar{\Xi}}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \tilde\Xi
```

```
1330 GCAGAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACATGGGAATG 1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1390 AFGGAAFGGGFFFGGGFFGFGAATTCACCTTTATTTGATCTTATFAAACAAFGAAAG 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1570 TCAACTACGCGTGTAAAFTCTACTGCAAATGCAGAGACAAGCAAGCTAGGCTLPGAG 1629
                    458 GluSerMetLeuLysSerGluGluGluGluArqLeuSerIleGlnAsnPheSerLysLeuLeu 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               498 TyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrp11e 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                518 LeuAsnValLeuAsnLeuLysAlaPheAspPheTyrLysValIleGluSerPheIleLys 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              598 AsnAsnHisThrAlaAlaAspMctTyrLcuScrProValArgScrProLysLysLysGly 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           618 SerThTTrangValAsnSerThTAlaAsnAlaGluThTGlnAlaThTScrAlaPhcGln 6.47
278 CystysGluHisGluCysAsmileAspGluValLysAsmValTyrPheLygAgnPheile 297
                                                                                             610 CCHITTATGAATLCTCTGGACTTGTAACALCIAAGGACHTGCAGAGGTTGAAAATCTT 669
                                                                                                                                                                                                                                                                                                                                           398 GluAssLoulleSerTyrPheAssAssCysThrValAssGruSertleLeaLys 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             538 AlaGluClyAsnLeathrArgCluMetilotySBisicuCluArgCysCluHisArgile 557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            638 ThrolmLysProleuLysSerThrSerLeuSerLeuDheTyrLyoLysVullyrAraleu 657
                                                           298 ProPhyMetAsnScrtz.uGTytedValThtSetAsnGTytedProGtuVaTGTuAsnLen
                                                                                                                             318 SerlysArgTyrCluClulleTyrLeufysAsnLysAspLeuAspAlaArgLenPheLeu
                                                                                                                                                                                                                           730 GATCATGATAAAACTGTTCAGACTGATTCTATAGACAGTTTTGAAACAGAGAGAAACA
                                                                                                                                                                                            338 AspHisAspLysThrLeuGlnThrAspSerIleAspSerPheGluThrGluArqThrPro
                                                                                                                                                                                                                                                                                                                         378 ValMetAsnThrIleGInGInLeuMetMetlleLeuAsnSerAlaSerAspGlnProSer
                                                                                                                                                                                                             qu
                                                              Ö.
                                                                                                                                                                                                                                                                                        ä
                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ξŢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
```

```
2410 CAGGAGAACHGGGAAAHGACHFFAGTGGAACGAAHGGAAAAGGAGAAATGAAT 2469
2290 - GTOFTCAAAAGAAGTGCTGAAGGAAGCAACCTCCTAAACCACTGAAAAAAATACGCTTT - 2349
                                                                       1870-GAMOLIAAATI QAAAATGATGI GI AAGAGGATAQAAGGA ICET GGI GATGCI GITGAGGAG - 1929
                                                                                                                                                                                                                                                                                                                                                                          1930 ACALTCAAACCEGITITEGALCAAAGAAGAGAGTATGATTCTATTATAGTATCTATATAGTATTGTATAAC 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        THITTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELTTELLETTELLETTELTTELLETTEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2350 GATATTGAAGGALGAGATGAAGGAGATGGAAGTAAAGATGTGGGAGGAGGAGAATTT 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  898 GludlalysteaaladlamerthrserthrargthrargmetGlalyssGlalysmetasn 917 (1111) (1111) (1111) (1111) (1111) (1111)
                                                                                                                                                                                                                                                                   738 ThrehelysArqVallentletysGluGluffurAspSertletleValPheTyrAsn 757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      838 SerPhedlyThrSerGluLysPheGlnLysIleAsnGlnMetValCysAsnSerAspArg 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           858 VallamlysArgSerAldGlm31ySerAsnProProLysProLemlySLysLeuArgPhe 877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               878 AspileGluGlySerAspGluAlaAspGlySerLySHiSLeuProGlyGluSerLySPhe 897
                                                    658 AlaTyrLenArqLenAsnThrLenCysGluArqLeuLeuSerGluHisProGluLeuGlu 677
                                                                                                                          758 SerValPheMetGinArqLeutysThrAsnfleLeuGInFyrAlaSerThrArqProPro 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     778 ThrieuserProlleProHislleProArdSerProTyrLysPheProSerSerProLeu 797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2470 GATAGCATGGATACCTCAAACAAGAAGAAGAAA 2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          918 ASPSerMetAspthrSerAsntysGluGlutys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Benedict, William E.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : Sequence 3, Application 08/09469522
: Patent No. 0820020191461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SPORENCES. 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xa, Bong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US 09 469 522 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESERVE 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                        3
                                                                                                                                                      3
                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                   =
                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                              5 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \tilde{S}
                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                          5
```

```
113 Met.SerPheThrPheThrGluLeuGlnLysAsnileOlulleSerVa:HislysPhePhe 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         133 AsnteuLeuLysGluffeAspThrSerThrLysValAspAshAlaMetSerArqLeuLeu 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            153 LystysTyrAspVallenPheAlalenPeSettysLenGluArgTh:?ysGluLenHe 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HEFFELLER FELLER FELLER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                213 ValifeSerPheCinteuMettauCysValicuAspTyrPhelletysLouSerProPro 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              233 MetLeuLeuLysGluProffyrLysThrAlaVallleProileAssGlyserPt.Arafhy 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 173 TyrLeuThrGlnProSerSerSerIleSerThrGluIleAsnSerAlaLeuAalLeuLys 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             247 GITTCTTGGATCACATITITATTAGCTAAAGGGGAAGTATTACAAATGGAAAGATGTTTG 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  307 GEGATITCATITCAGITAAIGGIAIGGIAGGIGGGIGGACIAIIIATIAAAGIGCICACCICCC 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWAKE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-026-459A-2 (1-928) x US-09-469 522 3 (1 3218)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 41,071
REPERENCE/DOCKET NUMBER: UTXC:504
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/414-3000
TELEPHONE: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AFRICALEM NUMBER, USJENGAR, ELEM
FILING DATE: 22-Dec-1999
CLASSIFICALION: «UDKNOWI»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             indels:
                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC Compatible OPERATING SYSTEM: DC-LOS/MS FOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGIH: 3218 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4192.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   87,398
                                                                                                                                   COUNTRY: USA
ZIP: 77210:4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
                                           CllY: Houston
STREET: P.O.
                                                                                       STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-469-522-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
```

```
1147 GIIGIAATGGCCACATAFAGCAGAAGTACATC FCAGAATCFFGAFFCFGGAACAGAFFFG 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1200 GAAAGTITITATCAAAGCAGAAACTIGACAAAGAAAATGAIAAAAACAITIAGAAGGA 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          882 ALTANACAATCAAAGGAACGAAGAAGAACAAATGAATGAATTGAATGTGATTGTTGTTGTT 1446
                (1) GluValGluAsnLeuSerLysAraTyrGluGluIleTyrLeuLysAsnLysAspLeuAsp 332
                                                                                                                                                                                                                                                                    607 GAGGITGAAAATCITTICITAAACGAIACGAAATITITATCITAAAAATAAAGATCIAGAT 666
                                                                                                                                                                                                                                                                                                                                          (93. SerAsphiloProSorthuAsaLealloSerTyrPheAsaAsaCysThrValAsaEroLys 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  847 AGEGATCAACCTECAGAAAATCEGATTTCCTATTTAACAACTGCACAGGAATCCAAAA 906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          113 GluSerlleLeuLysArgVallysAspileClymyrllePbeLysGluLysPhcAlaLys 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     45 TyrTyrArqValMetGluSerMetLeuLysSerGluGluGluArgLeuSerIleGlnAsn 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 473 PheSertysLeuteuAsnAspAsnilePheHisMetSerLeuteuAlaCysAlaLeuGlu 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               434 ValValMetAlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeu 512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        553 CysGluHisArqIleMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeu 572
25.8 ProArgArgGlyGlnAsnArgSerAlaArgIleAlaLysGlnLeuGluAsnAspThrArg 272
                                                                           274 HellegluValLeuCysLysGluHisGluCysAsnIleAspGluValLysAsnValTyr 292
                                                                                                                                                                                               547 ITCANANATITIATACCITITAIGANTICICITGGACTIGIAACATCIAATGGACTICCA 606
                                                                                                                                                                                                                                                                                                                     A A La Ara Leu Phe Leu Asp His Asp Lys Thr Leu Gln Thr Asp Ser Ile Asp Ser Phe Glu 352
                                                                                                                                                                                                                                                                                                                                                                                                  45.1 Thrology grint ProArgLysSerAsnLeuAspGluGluValAsnValIleProProHis 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                47 * ThrProValArgThrValMetAsnThrIleGlnGlnLeumetMetIleLeuAsnSerAla 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                *** GAAAGTATACTGAAAAGAGTGAAGGATATAGGATACATCTTIAAAGAGAAATTTGCTAAA 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               544 GluserPhellelysAlaGluGlyAsnLeuThrArgGluMetileLysHisLeuGluArg 552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      873 HebyschosertysAcpArginGlyProfikrAspHisLeuGluSerAluCysProLeu 592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      591 AsnlægProfeuGlnAsnAsnAfisThrAlaAlaAspMetTyrLeuSerProValArgSer 612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                         3
                                                                                                                                                                                                                                                                           =
                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                          Ĩ
                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                    \dot{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ė
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
```

```
1807 AAAGFGAAGAAFATAGACCFFAAAFFCAAAAFGAFFGFAACAGCAFACAAGGAFCTFGCF 1866
                                                                                                                                                                                                                                                                                                                                                                                                                             1867 CATGCTGTTCAGGAGATTCAAAGGTGTTTTGATGAAAGAAGAGGGGTATGATTCTAIL 1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2047 CCTAGTTCACCCTTACGGATTCCTGGAGGAACATCTAFATTFCAGGGGTGAAGAGTGTA 21.65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2107 TATAAAATITGAGAAGGIGIGGGAACAACAAAAAAAAAAGAGGAAGAIGAAGAAGAIGITA 2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2167 GTATCAATTGGTGAATGATTGGGAGTTGTGAGAAGTTGCAGAAALAAATGGAGA1GGTA 2226
                                                                                                                                653 LysValTyrArgLeuAlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGlu 672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     673 HisProGluLeuGluHisIleIleIrpThrLeuPheGluHisThrLeuGlnAsnGluTyr 692
                                                                                                                                                                                                                                                               693 GluLeuMetArgAspArgHisLeuAspGlnIleMetMetCysSerMetTyrGlyIleCys 712
                                                                                                                                                                                                                                                                                                                                                                                                                                                            753 HeValPheTyrAsnSerValPheMetClnArgLouLysThrAsnIlcLouGlnTyrAla 772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           793 ProSerSerProLeuArglleProGlydlyAshlleTyrlleSerProLeuLysSerPro 812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         813 TyrlyslleSerGluClyLeaPreThrProThrLysMetThrProArgSerArg1leLem 832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        833 ValSor12eGlyGluSorPheGly7hrSerGluLysPheGlnLysTleAshClmMetVal 852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         853 CysAsnSerAspArqValLeuLysArqSerAladludlySerAsnProProLysProLett 872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         873 LystystenArgPheAspTleGluGlySerAspGluAlaAspGlySerLysHisLegFto 892
                                                                                                                                                                                                                                                                                                                               2407 AACCAGAAATGAATGATAGGATGGATAGGATAGGTAAAGAAAAGAGAAAA 2454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      913 LysGlnLysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hu, Shi-Xuc
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/09469522
Si0020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. Öszőőzötől4:
General information:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S-09-4c) __
Sequence 44, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US:09-469 522 44
                                                                                                                                                                                                                                                                                                                         . δδ.
                                                                                                                                                                                                                                                                                              DP.
                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                  õ
                                                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                                                                                                                                ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ें
```

```
81 ValserSerValAspGlyValLeuGlyGlyTlyrlleGlnLysLysLysGluLeuTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101 The ystlether to Alashaval Aspleu AspGluMetSerPheThrPheThrGluicu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21 ProAlaProProProProProProProGluGluAspProGluGlnAspScrGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41 AsptantrolauValArdradluPhedluBlufhrGluGlutroAspPhelhrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         *1 CysGluLysLeaLysIleProAspHisValArqGluArqAlaTrpLeuThrTrpGluLys 80
TITLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                   COMPUTER: THM PC COMputible
ODERATION SYSTEM: PC:DOS/MS-DOS
SOFTWARE: Patentin Pelayse #1.0, Version #1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            316.1
757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08 09 026 459A 2 (1 928) x 08 09-469 522 44 (1-3161)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCEZOXCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches:
                                                                             ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COCATION: 7..2497
SEQUENCE DESCRIPTION: SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRALION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 22 Doc-1999
CLASSIFICATION: Amknown.
                                                                                                                                                                                              COMPUTER PEALABLE FORM: MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: $12/418 3000
TELEPAX: $12/474 7577
INFORMATION FOR SEQ. 1D NO. 44.
SEQUENTE CHARACTERISTERS.
                      PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGIH: 4161 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: - Unknown.-
ATTORNEY, AGENT INFORMATION:
                                                                                                  STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
                                        NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4068.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  80° 888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85.88%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84.81%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ToPoLoGY: linear
                                                                                                                                                         COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                CIIY: Houston
                                                                                                                                       STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Rest Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Allemment Scores;
Prod. No.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15 09 469 522 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
```

qq	307	ATCTGTATCTTTATTGTAGGGTTGACTTA	÷.
ζŎ	121	GlnLysAsnileGlulleSerValHisLysPheitheAsnLeulzeubysGlulleAspThr l	140
qq	336		÷ ÷
δŏ	141	Ser ThriysValAspAsnAlaMetSerArgLeutentystystyrAspValLeutheAla	168
qq	336		÷
9.7	161	LeuPheSerfysLeudlaArgThrSysSlaLeulleTyrLeuThrGlubroSerSerSer	≅
q	336		÷
ογ	181	HeserThrGlaileAsaSerAlaLeaValLeaLysValSerTryHeThrThebeaten 2	007
qu	136		÷ ÷
5	201	AlatyselyclaVallesdisMetGluAspAspassaValllederthedhauMethen 2	077
qq	436		4.46,
27	221	CysValLeuAspTyrPhelleLyoleuSerProFroMetLeuLeuLeuLyollufrufyrLys = 2	. <b>7</b> 7
<b>q</b> 0	336		4.46.
λo	241	ThrAtaVall1eProlleAsu61ySerFroArqThrProArqArq61yG1nAsuArqSer 2	0.42
વે <sub>ં</sub> .	337	GCTGTTATACCATTAATGGTTCACCTCGAACACCCAGGCGAGGTCAGAACAGAAT	* <del>*</del> *
.5 A	394	261 Albarg HealalyschaleuCloasiaspibrataiteire chsvalia afystyatha 280 HEELHIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	38 5 3 5 3 5
δλ	281	HisGluCysAsnIleAspGluValLysAsnValTyrPheLysAsnPhelleProPheMet	300
q C	454	CATGAATGTAATTTAAGAGGGAAAAAGTTTATTTCAAAAATTTAAAGTTTAAG	£ .
<b>3</b> 7	301	AsnSerLeadlyLeaValThrSerAsns)tyLeaProstavalstakaste as rigadra a Hillillillillillillillillillillillillill	\$20
a a	<b>7</b> T C	AAFICICITUGACITGIAACAICIAATGGACITCCAGAGGTGAAAATCTTTGTAAACGA B	*
oy op	321 574	Tyrcluclurletyrleutysashtenaspalaarquenhetensphisasp (	340
δ	341	LysThrLeuGluThrAspSer11eAspSerPheGluThrGluArqThrProAralysSer	46.0
qc	6.34	AAAACICTICAGACICALICIATAGACAGILIIGAAAAAAAAAAAAAAAAAAAA 6	÷.
δò i	361	AsnLeuAspóluóluValAsnVal1leProProfiisPhrProValArqThrValMetAsm 3 	380
np	594 4	-AAGCTIGATGAAGGGGTGAATGIAATTGCTGCACACTGCAGTTAGGACTGTTATGAAG-?	+ 5 /
cy Op	381 75 <b>4</b>	The LICGLIG Difference for The Londsenson A a Sept Aspatibilities of Charsellou a LILLIH HELLIH HELI	<u> </u>
δò	401	HeserTyrPheAsnAsnCysTbrValAsnProLysGluSerHeLeuLysArqValLys 4	2
qu	814	(TITTITITITITITITITITITITITITITITITITIT	87.4
Qy	421	AspiledlyTyrilePbetyschdysPheAlaLysAlaValeNysbedlytysValedu	7.4
qq	874	GATATAGGATACATTTAAAGAGAAATTTGCTAAAGCTGTGGGGACAGGTTGTGTCGTCGAA 9	* * *
Oy	441	TechyserGlnArgiyrLysLeuGlyValArqLeuTyrlyrArqValMeteLuserMet	150
<del>1</del> 2	934	ATTGGATCACAGGATACAAAQ1100A611CGC11G1A11ACCGAG1AA1GGAATCCATG	16,6
oy.	461	LeuLysSerCludludluArdLeuSerTleGlnAsnPheSerTysLeufowAsnAspAsn 4	
Q()	466	CT FAAA FCAGAAGAAGGALTA FGCAL FGAAAA FLITAGGAAACT FC FGAA FGAGAACT	0.5

Š	185	HorbetisMetSortenLeuAlacysAlaLeuGluValValMetAlaThrTyrSerArg	200
41	† 5 € T	(	1113
5	Sell	Ser thr Ser Ginasnicuasp Ser dlyThraspleuSerPheProTrp1 teleuAsnVal	
3 5	= ::	ACIASATELEAGAAR LICATI GARAA ARAITHILETTI LITATORALI GAALOIS LevatoritettysAlatkeAsptbeTyrtysVallleSlaSerPhelleLysAladiuGly	540
=	₹ 6: 	31.1.1.1111111111111111111111111111111	1233
5 3	17.4	ASBLEOUTHTATGCOMMETTELELYSHISLOUGHUATGCYSGOUHISATGLIGMETGLUSET   1711-1111-111111111111111111111111111	560 1293
\$ ±	561	Leuala IrpleuseraspserProteuPheaspleu Hetyschisertysaspargchu 	580 1353
女 音	581 1354	31yPr-Thraspilistaud1usarAlarysProLauAsnLauProTent1nAsnAsnIts 	600 1413
5 3	1414	DiralaAlaAspMcTTyrLcuSerProValargSerProLysLysLysGlySerThrThr 	620 1473
§ 8	h21	ArqvalAsnSerThrataAsnalaGlufhrGlnalafhrSerAlaPheGlnfhrGlnLys 	640 1533
交量	5.41	ProlectysSerTherenceuserLeapheTyrLystysValTyrArgLeahlaTyrLea 	660 1593
5 3	1594	ArgicusanThricutGysthargicutenSarchuffsbrochsrachsbrochsbrochsbrochsbridgicsbrochsbrochsbrochsbridgicsbrochs	680 1653
5 -	B 7	TEPTACLEUPRECTURISTANT.cuclnAsnGluTyrCluLeuMetArgAspArgHist.cu 	700
5 ±	707	AspetutieneuMetOysSerMetTyrdLyIleOysEysValEycAspleuEys	
y a	17.4	PhotysilelieValihralatyriysAspicuProHisAlaValGinGluthrPheLys	
5 8	- # - #	Argvalledlengsgludludgelgrapperlellevalbhetyranservalbhe i i 111111111111111111111111111111111	760 1893
5 3	761	761 Met GlunrqLeuLysThrasnileLeuGlnTyralaSerThrargProProThrLeuSer 780 1477   1114   1114   1114   1114   1114   1114   1114   1114   1114   1114   1114   1114   1114   1114   1114   148   AfgracanacanalariticaGlaigettcaccaggcccctactffica 195	
5 3	781	ProlleProBislleProArgSerProfyTLysPheProSerSerProLegarg LePro. LeTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	
5 3	8.1	GIYGLYASHTOLYTTI OSCTPTOLOULYSSCEPTOTYTLYSTI OSCTCUGLYLOUPTO 	820 2073
8 8	8.23 2.13	TheFroTheLysMetTheProArgSetArgIleLeuValSetTheGlyGluSetPheGly [3:4:1-1-11:1:1:1:1:1:1:1:1:1:1:1:1:1:1:1:	840 2133

```
Copyright (c) 1994 - 2004 Compugen Ltd
Sendore version 5.1.3
```

nucleic seatch, using SW model M muchoic

January 16, 2003, 15:20:22 ; Search time 89:2243 Seconds Mun one

(without alignments) 16320.731 Million cell updates/sec

US+09 026 459A 34 3266

Perfect Score:

1 GCCATGATGCTGTGGGGAAL.....AAAFGAGGATATTGATAGF 3266 Sequence:

Gapop 10.0 , Gapext 1.0 IDENTITY NOT Scoring table:

393868 seqs, 222934149 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Listing lirst 45 summaries Maximum Match 100% Post processing. Minimum Match OR

hatabase :

Published, Applications\_NA:\*

Zequez fezh odatazi zpurpna ZUSOT EUDROME. Sequezenta. Zequez fezh odatazi Zpubpna ZUSOT EUDROME Sequez fezh odatazi zbubpna ZUSOE LNEW EUB. Sequez et al. Zept. Sata a Zuzek properazione zuzek zega zequez zezh odatazi zi Zezkona ZUSOT LNEW prop. Sequez ze ze zezh odatazi zezh odatazi zenten zezh odatazi zezh odatazi zenten zen

/ogns\_6/phodata/i/puppna/10010S\_numonne\_sog.\* /ogns\_6/phodata/i/pubpna/osna\_new\_pun\_sog:\*

Cours\_6/production/Spakens/areno\_New\_Para Seq. • // Ants\_6/production/Spakens/areno\_New\_Para Seq. • Zeunz 6/peodara/1/pubpha/USIO\_NEW\_PUB.seq:\* /cun2\_6/ptodata/l/pubpna/us08\_puncomm seq:\*

/oqu2\_6/prodata/1/pubpna/US10\_puBCOMH.seq:\*/ /oqu2\_6/ptodata/1/pubpna/US60\_NEW\_PUB\_seq:\* /ceps\_6/ptedata/1/pubpha/US60\_PUROMB.seq:\* Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		æ				
Ressult		Ottorry				
ž	Score	Match	Match Length DB 1	<b>E</b>	11)	Description
-		100	4.76.6		110 00-466-600-34	Component 24 Areas
					#1 741 101 10 at	-
`	17.71	1.6.6		Ξ.	05 09-469 522 32	Sequence 32, Appl
<b>~</b>	1573	99.7		0	US 09-469-522-30	Sequence 30, Appl
4	1257	5 T. F.		=	45 - 028 - 644 - 625 - 28	3 23
u*	17,71	1.6.6		=	US-09-469 522 1	Sequence 1, Appli
ď	17.73	14.4.7		5	US-09-954-531-143	Sequence 143, App
	871971	9.66		=	US-09-469-522-50	Sequence 50, Appl
x	1226	¥.	1121	=	10 118-09-469 522 38	Sequence 38, Appl
,	1.225.4	¥.		=	US 09 469 522 40	Sequence 40, Appl
10	7777	\$ . 84°		57	555 69 469 522 4	Sequence 3, Appli
1.1	4107	(3.5)			US 09-469-522-36	Sequence 36, Appl
~-	40006	95.0		=:	750 09 469 522 42	Sequence 42, Appl
7 (	289B.6	3. 3. 3. 3.		=	US 09-469-522-48	Sequence 48, Appl
14	2886.6	ж8.4		=	US 09-469-522-46	Sequence 46, Appl
1.2	2827.4	14.6			US-09-469 522-44	Sequence 44, Appl
16	2560.4	78.4		01	US-09-860-211-7	Sequence 7, Appli
1.7	4 Z H	1 5 . 1		-	US 09-796-692 7740	Sequence 7740, Ap
Ξ	142.2	· ·		10	US-09-864-761 3141	Sequence 3131, Ap
·-	1.7.1	5.7		10	US-09-864-761-19910	Sequence 19910, A

TYPE: nucleic acid

Sequence 296, App Sequence 37, Appl Sequence 2546, Ap- Sequence 1, Appl. Sequence 1, Appl.	Sequence 2, Appl 1 Sequence 2, Appl 1 Sequence 3, Appl 1 Sequence 4, Appl 1	Sequence 343, App Sequence 4, Appli Sequence 11211, A	Sequence 4582, Apply Sequence 154, Apply Sequence 558, Apply Sequence 558, Apply Sequence 5784, Apply Sequence 5785, Apply Sequence 578	Sequence 12358, A Sequence 2769, Ap Sequence 4147, Ap Sequence 4147, Ap	Sequence 749, App Sequence 5166, Ap Sequence 4, Appli
08 09 964 824A 296 08 09 292 768 37 08 09 796 692 2546 08-09 770 657 1 08-10 025 676-2	US: 09 - 750 988 :1 US: 09 - 754 85 (A - 2 US: 09 - 754 - 85 (A - 3 US: 09 - 969 - 724 - 342)	US-09-969-873-343 US-09-754-853A-4 US-09-960-852-1121H US-09-960-352-14521	US 09-960-452-4582 US-09-962-812-154 US-09-960-452-558-8 US-09-960-452-5785- US-09-960-452-5785- US-09-740-498-1	US-09-654-751-12458 US-09-538-842A-2759 US-09-538-842A-4147 US-09-938-842A-4050	US-09-070-927A-749 US-09-938-842A-5166 US-09-220-091-4
0.501	2,,0	10 10 10 10	222222	20,00	0 50
3960 3960 324 3747	640681 335914 335914 435914	419 513509 424 411	393 302250 431 419 516 54	2000 2000 2000 2000	1376 2000 3209
~ 4 T T T T		44		 	444
104 68.8 59.4 51	4 8 8 4 4 8 8 4	4.84 4.87 4.87 4.83	- 44444 - 60000 - 60000000000000000000000000000	6 4 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	44.2
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	C 255 27 25 28 28	C 29 C 30 30 37	) O ************************************	2 3 4 4 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	C 43 44 45

## ALIGNMENTS

```
HU, Shi Xuc
Renedict, William F.
Zhou, Yanii
IIILE OF INVENTION: MODIFIED RETINEMBANIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                  ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/469,522
FILING DATE: Z2-Dec-1999
CLASSIFICATION: <UNKNOWN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-1005/MS 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474 7577
                                         Application 05/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                  PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGIH: 3266 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILLING DATE: SURROWN ATTORNEY/AGENT INFORMATION: NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                        STREET: P.O. BOX 4433
CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 34:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                 APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
ZIP: 77210-4433
                 05-09-469-522-34
| Sequence 44 Application 05
| Fatest 48, 052020151461A1
| SEMERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                       STATE: TX
RESULT 1
```

```
61 TICACTITIACTGAGGTACAGAAAAACATAGAAATGAGTGIGGATAAATTGTTTAACTTA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 LICACITITACTGACCTACAGAAAACALAGAAALGAGTGTGTGAGTGCTTTAACTTA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 CTAAAAGAAATTGATACCAGTACCAAGATGATAATGCTAIGICAAGACTGTIGAAGAAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 CIANANGANATIGATACCAGTACCAAGTIGATAATGCTATGTCAAGACTGTTGAAGAAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 TATIGATETATTITTTT GCACTICTTGAGGAAATTGGAAAGGAGATGTGAAGTTATATTTTG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PCATTICACTFAATGCTATGTGTTGAGTATTTTATTAAAGTCTGAGGTGGTG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 ICALIICANTIAAIGATATGIGTAAATTATTITAITAAAGISISAGIRGESAAGIIG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601 AATITTATACCITTTATGAATTCTGTTGGACTTGTAACATGTAALGGACTTGCAGAGGTT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 ACACAAACCAGCAGTTCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 TGGATCACATTTTTATTAGCTAAAGGGAAGTATTACAAATGGAAGATGATGATGATT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421 CTCAAAGAACCATATAAAACAGCTGTTATACCCATTAATGGTTCACCTCGAACACCCAGG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       54) GAAGIICICTGTAAAGAACAFGAATGIAAFAGAFGAGAGAAAAAFGFFFAFAAAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50] AATTTATAGGIITIAIGAAIICICIIGGAGTIGIAAACAICIAAIGGAGTICCAGAGGII 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661 GAAAATCTTTCTAAACGATACGAAGAAATTTATCTTAAAAATAAAAATGAAAGATCTAGAAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721 HIALFILLIGGATCATGAFAAACTGTTCGAAATGATTGTATAGACAGFTTFGAACACAG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721 ITATITITGGATCATGATAAAACTCITCAGACTGATTCTATAGACAGTTTTGAAAACACAG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  281 AGAACACGAAAAAAGTAACCTTGATGAAGAGGTGAATGTAATTCCTCCACACACTCCA 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841 GITAGGACTGITATGAACACTATCCAACAATTAATGATGATTTTAAATTCAGCAAGTGAT 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841 GITAGGACIGITATGAACACIATCCAACAATTAATGATGATTITAAATTCAGCAAGTGAT 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GCCATCATGCTGTGGGGAATCTGTATCTTTATTGCAGCAGTTGACCTAGATGAGATGTGG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 IGGAICACATITITATIAGCIAAAGGGAAGTATTACAAAIGGAAGAIGAICIGGIGAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 CICAAAGAACCATAIAAAACAGCHGTTAIACCCATTAATGGTTCACCTCGAACACCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481 CGAGGTCAGAACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541 GAAGIICICIGIAAAGAACAIGAAIGIAAIAIAGAIGAGGIGAAAAAIGIITAIFICAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     561 GAAAATCTTTCTAAACGATACGAAGAAATTTATCTTAAAAATAAAAGATCTAGATGCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Soore 4266; DR 10; Length 3266; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                             0; Mismatches
                                                                                              EQUENCE DESCRIPTION: SEQ 1D NO: 34:
SIRANDEDNESS: single
                      TOPOLOGY: Linear
                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                    Rest Local Similarity
Matches 3256; Conserv
                                                                        NAME/KEY:
                                                                                                                                                   09 469-522-34
                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <del>1</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :-
:-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
```

```
961 ATACTGAAAAGAGIGAAGGATAIAGATACATCTTIAAAGAGAAAITTGCTAAAAGCTGIG 1020
                                                                                                                                                                             1381 CATOGAATCATGGAATCCCTTGGATGGGTGTCAGATTGAGCTTTATTTGATGTGTTALLAAA 1440
                                                                                                     1081 CGAGTAATGGAATGCATGCTTAAATGAGAAGAAGGATTATGCATTGAAATTTTAGG 1140
                                                                                                                                                                                                                                                                                                                                       1081 CGAGTAATGGAATGCATGCTTAAATCAGAAGAAGAAGGATTATCCATTCAAAATTIFAGC 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1261 CCATGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTCATCCAAAGT 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321 TITATCAAAGCAGAAGTTGACAAGAAAATGATAAAACATTTAGAAAGGATGTGAA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1321 TTTALCAAAGCAGAAGCCAACTTGACAAGAGAAATGATAAAACATTTAGAAGGATGTGAA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1381 CAICGAATCATGAAATCCTTGCATGGCTCTCAGAITCAGCTTTAITTGATCTTATTAAA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1441 CAATCAAAGGACCGAGAAGGAGGAAGATGAGCTTGAATCTGCTTGTGCTTGTCCTTTAATCTT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441 CAATCAAAGGACCGAGAAGGACGAACTGATGAATCTGGTTGTGCTCTTAATGTT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1501 CCICICCAGAATAALCACACIGCAGCAGAIAIGIAICTITCICCTGIAAGAICTCCAAAG 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1741 GAATTAGAACATATGATGIGGAGGCTTTTTCCAGCACACGCAGAATGAGATATGAACTC 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1981 THCHAHAACHGGGHCTHGATGCAGAGAGTGAAAACAAATAFHTTGGAGTATGCTTTGCAGG 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1561 AAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAATGCAGGAGGACAAGAAGAAGAA 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1621 GPPTPGPAGACCAGAAGCCATTGAAATCTACCTCTTTCACTGTTTACTAAAAAAAGTG 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TABL TATORGUTACOUTATOTOCOROTAAATACACIITGIGAAGGCCIIGIGIGIGGAGGCACOA 1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1801 ATGAGAGACATTTGGAGCAATTTGAAATTATGATGTGTTGCATGTATGGGALATGCAAAGTG 1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1861 AAGAATATAGACCTTAAATTCAAAATCATTGTAACAGCATACAAGGATGTTGCTCATGCT 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1921 GTTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGGAGTATGATGATATAATAA 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1561 AAAAAAGGTTCAACTACGCGTGTAAAIICTACIGCAAATGCAGAGAGACACAAGCAACCICA 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1861 AAGAATATAGACCTIAAATTCAAAAICAIIGIAAGAGGAIAGAAGGALGIGGIGAIG T 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1921 GTTCAGGAGCATTCAAACGTGTTTTGATCAAAGAAGGAGTATGATGTATATAAAA 1980
1501 CCTCTCCAGAATAATCACACTGCAGAAATGTTTCTCCCTGTAAGATCTCCCAAAS
                                                                                                                                                                                                                                                                                                                                                                                           1141 AAACTTCTGAATGACAACATTTTTCAIAIGTCTTIAITGGCGTGCGCTCTTGAGGTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>></u>;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
```

```
2101 TCACCCTAOSGATICCTGGAGGAACATCTATATTCACCCCTGAAGAGTCCATATAAA 2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2281 AGGGACCGTGTGTGTCAAAAGAAGTGCTGAAGGAAGCAACCTTAAACCACTGAAAAAA 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2581 CONGGITCIGITIATGGCCANATITAATATCITCAGCTCTTTTGTGGATATAAAAIGT 2640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2701 ACAAGATTGAAAATCTTGTGAAATCCTGCCAITTAAAAAGGTGGAGGAGATTGTTGCT 2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2761 CTTCCAAAGTAAAATTGCTGTGCTTTATGGATAGTAAGAATGGCCCTAGAGTGGGAGTCC 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1981 ITCTATAACHGGGTCTLGATGCAGAGHGAAAAGAAATATTTTGGAGTATGCAGG 2040
                                                                           2041 AGGCCCCTACCTTGTCACCAATACCTCACATCCTCGAAGCCCTTACAAGTTTCCTAGT 2100
                                                                                                                                                                                                                                                  2101 FOACCOTTACGGATICOTGGAGGGAAGATCTATATTTCAGGCOTGAAGAGTGTATAAA 2160
                                                                                                                                                                                                                                                                                                                                                                                                             2161 ATTTCAGAGAGTCTGCCAACAACAAAAATGACTCCAAGATCAAGAATCTTAGTATCA 2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2281 AGOGACO DE COLORADA AGA A COLO GA A COLO CARROCA COLO COLO COLO CALA CARROLA CARR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.441 CTACGCTTTGATATTGAAGGATCAGATGAAGCAGATGGAAGTAAACATCTCCCAGGAGAG 24.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2401 TCCAAATTTCAGCAGAAACTGGCAGAATGACTTCTACTGGAACAGGAATGCAAAAGGAG 2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2451 AAAATGAATGATAGGATAGGATAOTTGAAAGAAGAAGAAATGAGATGTGAGGACGTT 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2461 AAAATGAATGATASTATGGATASCTCAAASAAGAAGAAGAAATGAGGATGTSAGGACGTT 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2521 GOTGGACACTGTGTACACCTCTGGATTCATGTCTCTCACAGATGTGACTGTATAACTTT 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            264) GCAGATOCAALIGITIGGGIGALICCIAAGCACITIGAAATGITAGICATTGTTATTTAF 2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2821 EGATAACCCAGGCCFGFGGACFFGCFFGCTTFCTFGTAGCAFATAGGTGATGTTTGC 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28.21 IGATAACCCAGGCTGTGTGTGTTTTTGTTTTTGTAGGAGATGATGTTTGC 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2940 FOTEGETTTEATTAATTTATATGTGTATTTTTTAATTTAACATGAACGCCTTAGAAAA 2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2941 TGTGTCCFATGTAFCTFCCAAATGCAATTTGAFTGACTGCCCAFTGACGAAATFAFGCT 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8001 GAACHCFFCFGCAAAAFGGATAFFAFFAFFAAAFFAGAAAAFFFACFAAFFFFACACA 3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (001 GAACTCTTCTGCAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTTACACA 3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3061 TTAGATTTTATTTTACTAGAATCIGAIAIAGTGTGTGTGTTTTATAAAATTTGG 3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2221 AFFGGFGAATCAFFGGGAATFGFGAGAAGFFCAAAAATAAAFGAGAIGGIAIGFAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \frac{5}{5}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
```

```
3121 TTTTAATTAAATAAAAGCTGGAAGCAAAGTALAACCATATGALACTATATACTAAA 3180
                            67 CTGTGGGGAATCTGTATCTTTATTGCAGCAGTTGACCTAGAGATGTCGCTTCACTTTT 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70 ACTIGAGCTACAGAAAACATAGAAATCAGTGTGCGATAAATTGTTTAAGTTACTAAAAAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      O; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10 CTGTGGGGAATCTGTATCTTTATTGCAGCAGTTGACCTAGATGAGAATGTCACTTTT 69
                                                                                           ACAGATIFITCATACCTICAGAATGTAAAAGAACTTAATTGATTTTT TO FFOATOTATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99.7%; Score 3257; DB 10; Length 3323; 100.0%; Pred, No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Pred. mo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COKKESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White a burkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 01XC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERALING SYSLEM: PG-DOSZMS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 7..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 32:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                      3241 GITITIAAAIGAGGAIIAIIGAIAGI 3266
                                                                                                                                                                                                           REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 22 Dec-1999
CLASSIFICATION: *Unknown ·
PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                  US-09-469-522-32

- Sequence 3. April: ation USZ09469522

- Patent No. USZ0020151461A1

- GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 3424 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. BOX 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: 32: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIF. 77210 4443
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                Xu, Hond-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                        Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 100.0 Matches 3257; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANI:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                    RESULT 2
                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
```

8 8 4 4 8 8 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	69 26 88 89 89 89 89	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	39 39 39 56 39	
ECTACAGAAAACATAAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAAGA 1  SCTACAGAAAAACATAAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAAGA 1  HILLILILILILILILILILILILILILILILILILIL	ALTAGUTAAAGGGAAGTAFTACAAATGGAAGATGATGGTGATTTGATT	AATATAGATGAGGGAAAAAGTTTATTTCAAAATTTTATA 6 111111111111111111111111111111111111	SATAAAACTCTTCAGACTGATTCTATAGACAGTITTGAAAACAGAAGACACA  [HITHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	3AAA 96 3AAA 10 3AAA 10 3AAA 10 3AAA 10 3AAA 10 3AA 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
UTGA UTGA UTGA UTGA UTGU UTGU UTGU UTGU		TGTAAAG 	GATCATC HILLIHI GALCAIC CGAAAAA HILLIHI CGAAAAAA GTHALGA GTHALGA	
130 130 190 190 250 307		N	730 787 790 847 850 950	910 967 970 1027 1087 1087 1147 1150
d 3 d 3 d 3 d	ប៊ុនិទី៩៩៩៩៩	១៩១៩៦៩	5 2 5 2 5 2	3 3 3 4 5 3 5 4 5

1689 1210 TATAGGAGAAGTAGATGTGAGAATGTTGGAAGAAGAGATTTGTGTGTTTTGCGALGGALL 1269 1270 CTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTATCAAA 1329 1330 GCAGAAGGCAAGTTGAGAAAAGAAAATGATAAAAGATTTAGAAGGALGTGAAGALCAAAGT 1389 1390 ATGGAATGCCTTGCATGGCTCTCAGATTCACCLTTALTIGATCTTAAACAALGAAAG 1449 1387 GCAGAAGGCAAACTIGACAAGAGAAAIGAIAAAAAGAIIIAGAACGAIGIGAACAIGGAAIG 1448 1447 AUGGANICCETIGCALGGETETECAECTITALLIGATETIANIAAACAALGAAAG 1506 1629 2287 TOATTORGACTIOTHUMINING HIMINING HI 1927 GACCITAAATICAAAATCATIGIAACAGCATACAAGGATCITGCICATGCIGIICAAGAA 1986 2050 ACCTTGTCACCAATACCTCACATTCCTCGAAGCCCTTACAAGTTTCCTACTTCTTCACCTTA 2110 GGGATTGGTGGAGGGAAGATGIATATTTGAGGGGGGAAGAGTGGATATAAAA111CAGAA 2159 2227 GOTOTOGONAGACAAAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTCAA 2286 2230 TCATTCGGGACTTCTGAGAAGTTCCAGAAATAAATCAGATGGTATGTAACAGGGAAGGT 2289 2107 ACCITGIONNIN THINN THINN THINN THINN THE TRACERS ACCITACA ACCITACINATION TO THE TRACERS ACCITACING ACCITACINA ACCITACINA ACCITACINA ACCITA 2167 OGGAPPOPUGGAGGGAAGAPGTATTTGAGGGGTGAAGAGTGGATATAAAATTTTAAAA 1450 GACCGAGAAGGACUAACIGAICACCITGAALCIGCCTTGICCTTTAATCTTCCTCCAG 1510 AATAATCACACTGCAGCAGATATGTTTTCTTTCTTGTAAGATCTCCAAAGAAAAAGG 1570 FCAACTAFGCGTGTAAALTCTAGTGCAAALGCAGAGGAGCAACCTCAGGCLLCCAG 1687 ACCCAGAAGCCAFFGAAATCTACCFCTTTFCACTGTTTTATAAAAAAGTGTAFFGGCTA 1690 GOCTATOTICOGGCTAAATAGAGTITTGTGAAGGGGTTGTGTGTGAGGGAGCGAGAATTAGAA 1807 CATATCATCHGACCCTTTTCCAGCACACCCTGCAGAATGAGTATGAACTCATGAGAGAC 1810 AGAGATTGGACTAAATTAFGATGGGTGTGTGTGGCAAAGTGAAGTATATA 1867 AGGGAFTFGGAGGAAATTATGATGTGTTGCATGTATGCATATGCAAAGTGAAGAAATATA 1870 GACCTTAAATTCAAAATGATTGTAACAGCATACAAGGATCTTGCTCATGCTTCAGGAG 1750 CATATCATCTGGACCTTTTTCCAGCACACCTGCAGAATGAGTATGAACTCATGAGAGA 1990 TOGGTOTTCATGGAGAGAGAAAAAAAAAAIAHHIGGAGHATATTTCGAGGAGGGGGG 2170 GGTCTGCCAACAACAACAAAAATGACTCCAAGAICAAGAATCTIAGIAICAAIIGGTGAA q ें ò ò d ó 0 1 1 1 1 a ογ 3 9 ò

```
2290 GTGCFCAAAAAAAHGCTGAAGGAAGCAAGCTGCTAAAGGAGTGAAAAAAAGTAGGCFFT 2349
                                                                                                                                                                      2.447 GESCECANAGAGE GCEGANGIAAGGACOTOTE 24.06
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2522 STATESTALES AT PROCEEDING THE HITCH H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25.40 TOTOTACAPPETED ON FIRST FOR PROPERTY AND ACTIONAL PROCESSES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THE THITTELLITE THE THITTELLITE THE THITTELLITE THE THITTELLITE TO SAME TO SAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220) ATGITIGGGTGATICGTAAGGAAGTGAAATGITAAGTAATTATTATAATTA 2766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2350 GATATTGAAGGATMAGAAGGAGATGGAAGTAAAGATGTGGGAGGAGAGTGGAAATTT 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2410 (A 3CAGAAAATGGGAGAAATGAGTTGTACTGGAAGGAATGGAAAAGGAGAAAATGAAT 2469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2470 GATAGYATGGATAPPTGAAAPAAGAAGGAATGAGGATGYPAGGAYSTIGGTGGAGAG 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2590 TGITTALGGCCACATITAATAICTICAGCTCIIIITGIGGAIA1AAAAIG1GCAGAIGGA 2649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2710 AAAATCI DIBBAAAOCO DOCCATI FAAAAAGTIGIAGGAGATTGIT FCCICIFICCAAAG 2769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22.70 TAMAATTO/TOTOCFTTAF0/ATAGTAAGAATGGCCCTAGAGTCCTCATAAGCC 2829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2890 TALFAATITAFATGTAFATTTTTTTTTAATTTAAGATGAGGGTTAGAAAATGTGTGTG 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2947 TATTAATITATATGIALATETITTAATTIAACATGAAGGCCTTAGAAAATGTGTCCTA 3006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (01) 10:AAAAAIGGAIAIIATIAGAAAIIAGAAAAAIIACTAATTTTACACATTTGT 3069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1070 ALLEIACTALIGGAALCTGATATACTGGTTGTT CTATAAAAFTTFGCTTTTAATTA 3129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        $130 AATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATGATACTACTGAAACAGATTTC 3189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41H7 AATAAAAGCTGGAAGCAAAGTATAAGCGATACTATGATACTAGTGAAAGAGATTTC 3246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2650 ALIGH FOMESAHOTTAAGGCACH GAAATGITAGIGALTGITAH TALAGAAGAFFG 2709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1250 TOAGGALIALIGALAGE 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3307 IGAGGALLALIGALAGE 3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             جَ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
```

```
256 AFFGATACCAGTACCAAAGTTGATAAFGCTATGTCAAGACTGTTGAAGAAGTATGATGTA 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70 ACTGAGCTACAGAAAACATAGAAATCAGTGTCATAAATTCTTTAACTTAACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   130 ATTGATACCAGTACCAAAGTIGATAATGCTATGTCAAGACTGTLGAAGAAGTALGATGTA 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               190 ITGITTGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTTATATATTTGACACAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                250 AGCAGT FCGATATCT ACTIGAAATAAATTCT GCATTGGT GFTAAAAFT FFT FGATCACA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             310 TITTLAFTAGCTAAAGGGGAAGTATTAGAAATGGAAGGTGALFTGGTTGATTLGAG 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10 CIGEGGGAATCEGIATCETATEGCAGCAGTEGACCTAGATGAGATGTCGTTCATTTT 69
                                                          Hu, Shi-Xue
Benedict, William F.
Zhou, Yunii
TITLE OF INVENTION: MODIFIED RELINOBLASIOMA HOMER SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.7%; Score 3257; DB 10; Langth 4492; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, Version #1.46 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                            NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durker
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/09/469, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERALING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE DESCRIPTION: SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 22-Dec 1999 CLASSIFICATION: CLASSIFICATION: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 3392 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                997.7.
100.08; Prv
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: • UURDOWD • ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                             STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE, 512/418-300
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO. 30:
SEQUENCE CHARACLERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
                                       APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ToPoLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 3257; Conservative
                                                                                                                                                                                                                                                                                                           210-4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
; Patent No. US20020151461A1
                                                                                                                                                                                                                                                CITY: Houston
                                                                                                                                                                                                                                                                                          COUNTRY: USA
                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-08-88-80-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

:: ::

,			00 3 0 4 0 5 0 6 0 6 0 7 0 8
49 48 48 61 67 54 73	56 72 72 85 78 91 97 10	96 10 110 111 112 112 112	12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ITTITATTAGCTAAAGGGAAGTATTACAAATGGAAGATGATCTGGTGATTTCATT FTAATGCTA GGTGCTTGACTATTATAAACTCTCACCCCTGCCCATGTTGCTCAA TAATGCTATGTTGTTTATATCCATTATATTAT	ATCT ATCT TTTT TTTT TTTT (CACC (CACC (CACC (CACC (CACC (CACC (CACC (CACC	913. GAAAATCTGATTTCCATTTTAACAACTGCACGGAACGAAAGAAA	AATGACAACATTTTCAIATGTCTTTATIGGCGTGGGTCTTGAGGTIGID
	5 4 5 6 5 6 5 6 5 6	5 8 5 8 8 3 8 8	5 6 5 6 5 6 5 6

Q.A.	1450 GZ 	459 GACCGAGAAGAACCAACTGAICACTGAATCTGCTCTGTCCTCTTAATCTTCCTCTCTCTC 1509 HTH HTH HTH HTH HTH HTH HTH HTH HTH HT
රු ස්	1510 AZ 	MTAALCACACHGPARCAAATATATATATATCOOGAAAAATCTCCAAAGAAAAAAGGT 1569 HILLIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI
QY	1570 TC     1696 TC	CAACTAGGGGTGTAAATTCFACTGGAAATGCAGAGACAAGAACAACCTGAGCTFCCAG 1629 
oy ob	1630 AC 	CCCAGAAACCAITGAAATCIACCICITICACTGITITATAAAAAAGIGIATCGGGTA 1689 
oy Db	1690 GC     1816 GC	CTATCTCCCGCTAAATACACTTTGTGAACGCCTCTGTGTCTGACGCCCCGGAATTAGAA 1749 
oy Db	1750 CA 	ATTORICHORACCTITICCAGCACACCTGCAGAAIGAGTALGAACCAGAGAGA^1809 HILLIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI
Qy Db	1810 AC     1936 AC	SGCATTEGGACCAAATTATGATGTGTTCCATGTATGGATATGCAAAGGAAGG
cy Db	1870 37     1996 37	NECTEAARI EGAAAR CATIGIAACAS CATACAAS GATCITOCIO ALGO ISTO GAGA GAGA GAGA GAGA GAGA GAGA GAGA GA
ଟ ପ	1930 AC 11 2056 AC	TALICAAANDIGIIIIGALGAAAGAAGAGAGIAGAFICIALKATAGIALICIATAAC 1989 
λο qα	1990 TC     2116 TC	GRITCH D'ALGERARAN TGAAAACAAATATTIGGAGTATGCITCCACCAGGCCCCT 2049 
oy Oy	2050 AC     2176 AC	CTISTCACCAAIACCICACALICCICGAAGCCIIACAAGIICCIAGIICACCATA 2109 
Oy Db	2110 oc 11 2236 oc	SCATFFORM COARCAAAAN CHATATTT CACCATTCAACATCACAAAATTT CACAAAAAAAA
Qy Db	2170 GC     2296 GC	INCTOCCAACAACAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Oy Ph	2230 pr     2356 Tr	ATTOGRAZOTTOTRARARATOTRARARARARARAGERATGITATOTRARGESAVOGT 2289 
Oy Db	2290 G1     2416 GT	POTICAAAAGAAGTGCTGAAGGAAGCAACCOLOCTAAACCACTGAAAAAACTAOOTII 2349 
Qy Db	2350 GA 11 2476 GA	TRATEGANGATCAGATGAAGONGATGGAAGTAAACATCTCCCAGGAGTCCAAATTT 2409 
oy Ob	2410 CA 11 2536 CA	NRCASARAR TESTAGARATGACITETACIEGAACAUSAAISCAAAASCAGAAATGAAT 2469 
oy Db	2470 CA 	NEAGCATIONALACTICAAACAACAAACAAA (GASCA) CITCASGAOOTTOO (GGACA), 2529 

Tue Jan 21 10:03:09 2003

```
8190 ALACCICAGAAFGIAAAAAAATIIACIGAFIATTIITCITCATGCAACTIAFGITTTTAAA 3249.
                                                                             2656 TOTALL FEBRUARY CALIFORNIA TOTAL CONTROLLE CANADA TOTAL CALIFORNIA TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2950 TCTATCLTCCAAATGCAATTGATTGACGCCATTCACCAAAATTATCTGTGAACTCTTC 3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8010 EGCAAAAFGGATAFTATFAGAAATFAGAAAAATTACFAATTFFFACACATFAGATFFF 3069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HITTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELlettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettel
25.40 TGTGTACACTCTGGATTCATTGTCTCTCACAGATGTGACTGTATAAGTTTCCCAGGTTC 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2650 ALLSH FOOTITALLOTTAAGOCACTIGAAALGTTAGTGATGITALITALACAAGATTG 2709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2/10 AAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCAGATTGTTGCTGCTTGCAAAG 2769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2836 AAAATELLGIGTAAAFGERGCCATTTAAAAAGFFGTAGGALTGF11GFGTGGAAAG 2895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2770 TAAAATTOMOTOROTTIA DOAFAOTAAGAA FOOCCITAGAGTOOGAGTOOTGATAAOOO 2829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2896 1AAAATTGCTGTGCTTTAFGGATAGTAAGAATGGGCCTAGAGTGCTGGATAACCC 2955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2830 AGGCTGTCTGATTACH LGCTHGTHTGTAGGATATAGGTGAIGHTGCTCTTGTTH 2889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2890 FATTAATTTATATGTATATTTTTTAATTTAACATGAACACCTTAGAAAATGTGTGCTA 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8076 TCTATCTFCCAAATGCAATTGATTGACTGCCCATTCACCAAAATTATGCTGAACTCTTC 3135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4136 FGCAAAAA GGATALLALLAGAAALLAGAAAAATTACTAATTTTAGAGALTAGATTLT 3195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8070 ATTITACTATISGAATCIGATATACTGIGGIIGIITTAIAAAAITITGGITIIAATIA 3129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41.30 AATAAAAGGGGAAGGAAAGTATAAGGATATGATACTATGATACTGAAAGAGATFTC 3189
                                                                                                                                                                                                                                                                                                                              2590 ROLLIA DIGGGAZATA FAATAFO ITCAGGTGTTTTGTGGATATAAAA FGTGGAGATGCA 2649
                                                                                                                                                                                                                                                                                                                                                                                                           2776 ATTGTTTOGGTGATTCCTAAGGCAGTGAATGTTATTGTTATTAAAAATTG 2835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Benedict, William E.
Zhou, Yunli
ITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Armild, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STPEET: P.O. BOX 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1376 TCAGGALLATTGALACT 3192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4250 TGAGGATTATTGATAGT 4266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SECUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 77210-4433
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No. USZODZO151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "IIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US UP 469 522 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PESTILT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \stackrel{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 :-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ÷.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
```

```
259 ACTGAGGTACAGAAAAACATAGAATCAGTGTCCATAAAATTGTTTAACTTACTAAAAAGAA 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   130 ATTGATACCAGTACCAAAGTTGATAATGCTATGTGAAGACTGTTGAAGAAGAAGTATGTA 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          319 ATTIGATACCACTACCAAAGTTGATAGTCAAGACTGTTGAAGAGAAGTATGTA 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      190 TTGTTTGCACTCTTCAGCAAATTGGAAAGGACALGTGAACTTALATATTLGACACAACCC 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    250 AGCAGTTPGATATCTACTGAAATTAAATTCTGCATTGCTGAAAAGTT LOTTGGAALCACA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    310 ITTTTATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGATCTGGTGATTTCATTGAG 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            370 TTAATGCTATGTGTCTTGACTATTTTATTAACTCTCACCTCCCATGTTCTCAAAGAA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      559 TTAATGCTATGTGCCTIGACTATTIJATTAAACTCTCACCTCCCATGTTGCTCAAAGAA 618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  619 CCATATAAAACACCIGITATACCCALIAAIGGITGACCCGAAGACCCAGAGGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     490 AACAGGAGTECACGGATAGCAAACAAACAAATGATACAAGAATTATTGAAGTTCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               679 AACAGGAGGCACGGALAGCAAAACAACLAGAAATGALACAAGAATTATTGAAGTLCT 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             199 CTGTGGGGGAATCTGTATTTTATTGCAGCAGTTGACCTAGATGAGATGTCACTTTT 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70 ACTGAGGTACAGAAAAQATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            i,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Match 99.7%; Score 3257; DB 10; Length 4455; Local Similarity 100.0%; Pred, No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                               APPLICATION NUMBER: US/09/469,522
                       COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC DUS/MS-1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 7..2691
SEQUENCE DESCRIPTION: SEQ ID NO: 28.
                                                                                                                                                                                                    APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                     NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                                                                    FILING DATE: 22-Dec 1999
CLASSIFICATION: +Onknown>
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGIH: 3455 base pairs
                                                                                                                                                                                                                            · Unknown>
                                                                                                                                                                                                                                              AITORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 512/474-7577
                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NOT ZHE
                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACLERISTICS:
                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: mucheic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 3257; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                                                                                                                            FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                           TINCH.
                                                                     SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Matich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
```

::

669 858 729 918 978 849	. 0 0 0 -	1029 1218 1089 1278 1149 1338	1209 1398 1269 1458 1329 1518	1389 1578 1449 1509 1509	156 175 162 181 181
OCUTHALGAATICTCTTGGACTTCTAACATCTAATGGACTTCCAGAGGTTGAAA HHHHHHHHHHHHHHHHHHHHHHHHHHHH	HITTITITITITITITITITITITITITITITITITITI	AGAGIGAAGATATATTI AGAGIGAAGATATATTI AGAGIGAAATTGGAGA HILLIHIHIHIHI FIGGAAATTGGAAATGGAGA GAATCCATGCTTAAATG	- AAIGACAA 	OCACAAGGCAA ITTELLITITI GAGGAAGCCC A LOCATCCCC A LOCACAGGCC GACCGAGGCC C	AATAALCACCTGCAGCAGATATGTATTTTTCTCTGTAAGATCTCCAAA  AATAALCACCTGCAGCAGATATGTATCTTTCTCTGTGAGATCTCCAAA  AATAATCACATGCAGCAGATATGTATCTTTCTCTGTGAAAGATCTCCAAA  PTCAGTACGCTGTAAATTCTACTGCAAATGGAGAGCACCACCTC  TTTTTTTTTT
2	8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	11.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	1155 121: 123: 145: 145:		· in a in b a no
3 d 3 d 3 d 3	3 8 8 8 5 8	8 8 8 8 8 8	5 5 5 5 5 5	चित्रं घेते वत	5 8 5 8 8 3

25 18 2403 1750 CATATCATCTGGACCTTTTGCAGCACCTGCAGAATGAGTATGAACTCATGAGACT 1809 1810 AGGCATTTGGACCAAATTATGATGTGTTTCCATGTATGGCATAIGCAAAGTGAAGAAIAIA 1869 2049 5887 2349 7464 2710 AAAATGITGIGIAAAIGGIGGGAIIIAAAAAGIIGIGGAGAIIGIIIGGIGIGGAAAA 2759 2899 AAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTACCAGATGTTTCCTCTTTCCAAAG 2958 2770 TAAAATTGCTGTGCTTTATGGATAGTAAGAATGCCGCTAGAGTGGGAGTCCTGALAACCT 2829 1870 GAMMITAAATIIMAAATIMAAATIMAAAAAAAAAAAAATIMTIMMITAATGA GA LGI MAGGAG 1929 1930 ACATTCAAACGTGTTTTGATCAAAGAAGAGGAGTATGATTCTATTATAGTATTCTATAAC 1989 2239 ACCTISICACCAAIACCICACATTCOICGAAGCCCIIACAAGIITCCIAGIICAAGGIIA 2298 2110 CGGATTCCTGGAGGGAACATCTATATITCACCCCTGAAGAGTCCATATAAAATTTCAGAA 2169 2650 AITGITIGGGTGAITGCIAAGGCACIIGAAAIGIIAGICAITGITAIITAIACAAGAITG 2709 1690 GCCTATCTCCGGCTAAATACACTTTGTGAAGGCCTTGTGTCTGAGGAGGCCCAGAATTAGAA 1749 2470 GATAGCATGGATACCTCAAACAAGGAAGAAATGAGGATCTCAGGACCTTGGTGGACA 2659 GATACCATGGATACCTCAAACAAGGAAGAAATGAGGATCTCAGGACCTTOGTGATAC 2229 TGTTTATGGGGAATTAATATGTTGAGGGTGTTTTTGTG3GATAAAATGTGGGGA 1939 CATATCATCTGGACCCTTTTCCAGCACACACAGAATGAGTATGAACTGAGAGA 1999 AGGGATTTGGACCAAATTATGATGTGTTCCATGTATGGCATATGGAAAGTSAAGAATATA 2059 GACTTAAATTCAAAATCATGTAACAGCATACAAGGATCTTCCTCATGCTGTTCAGGAG 2119 AÇATTÇAAAÇĞEGTTTEGATÇAAAGAAGAGGAGIAFGATTCTATTATAGEAFTCIAFAAC 2179 TCGGTCTTCATGCAAGAAGAAAAAAAAAAAITHGGAAGIAIGCGUGCAYYAAGCCCYG 2050 APPITTOTTOTATAPPITTOTTOGAGGCCCTTACAAGITTTOCTAGTECTA 2299 - CGGATTCCTGGGAGGGAACATCTATATTTCACCCCTGAAGAGTCCALATAAAATTTCAGAA 2359 GGTCTGCCAACAACAAAAATGAACTCCAAGATCAAGAATTAGTATCAATTGGTGAA 2350 GATATTGAAGGATCAGATGAAGCAGATGGAAGTAAACATCTCCCAGGAGAGTCCAAATTI 2539 GATATTGAAGGATCAGAAGGAGGAGTTGAAAATTT 2530 TGTGTACACCTCTGGGATTCATTGTCTCACAGATGTGACTGTAACTTTCCCCAGGTT 1990 TCGGTCTTCATGCAGAGACTGAAAAAAAAATATTTGCAGTATGCTTCCACTAGGCT 2170 GGTGTGCCAACAACAAAATGACTGCAAGATCAAGAGTGGTAGTAATGGTGGTGAAA 2419 TCATTCGGGACTTCTGAGAAGTTCCAGAAAATAAATCAGATGGTATGTAACAGCGACCGT 2290 GTGCTCAAAAGAAGTGCTGAAGGAAGCAACCCTCCTAAAACCACTGAAAAAACTACGCTTT 2410 CAGCAGAAACTGGCAGAATGACTTCTACTCGAACGAATGCAAAAGGAGAAAATGAAT 2599 CAGCAGAAACTGGCAGAAATGACTTCTACTCCAAAAGGAAAAGCAAAAAGGAAAAAAGAAA 2590 TCTTTATGCCCACATTTAATATCTTCAGCICTTTTTGIGGATAYAAAAIGTGCAGAIGCA 2230 TPATTCCCGACTICTCAGAAGTTCCAGAAALAAATCAGATGCTATGTAAGACCAGGT 2719 TRIGIACACTCTGGATTCATTGTCTCACAGAGGGACTGTATAACTTTCCCAGGTT qa •• qq ò ò े ੇ à dC ें qc õ ें 4 ő g Ś 9 ò 9 े a á q à a Š QQ ò á õ

```
8079 ATTITACIATIOGAATCIGATAIAGIGIGGITGITTITAIAAAAITTIGCIIIIAATIA 3129
                                                                                                                                                                                                                                                                                                                  2890 TAITAATITATATATATATTITITAATIITAAGATGAAGAGGGGTTAGAAAATGTGTGTA 2949
                                                                                                                                                                                                                                                                                                                                                                       3190 ATACCTCAGAATGTAAAAGAACTTACTGATTCTTCTTCATGCAACTTATGTTTTAAA 3249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2959 TAAAATTGGTGGGTITALGGAIAGIAAGAALGGGGGIAGGGGAGTGGGAGTGGTGATAAGGG 3018
                                                                                                                            2830 ACTUAL GEGINALIAM FIRM TOTAL OF THE CONTRACT AND ACTION OF THE CONTRACT TO THE TRACE AND ACTUAL ACTUAL
                                                                                                                                                                                                                       8019 AGGGCTGTCTCACTACTTTGCCTTCTTTGTACCATATACGTCATCTTTGCTTGTTTT 3078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2950 ICTATOTICCAAATGCAATIIGAITGACTGCCCAIICAACAAAATIALGCIGAAGICIIG 3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3258 TGCAAAAATGGATATTATTAGAAATTAGAAAAAAATTACTAATTTTACACATTAGATTTT 3258
Zhou, Yurli
IIILE OF INVENTION: MODIFIED RETINOHLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBEP: US/00/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DECKET NUMBER: UTXC:505
FELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEF: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: THM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLITATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hu, Shi-Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: + Unknown+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILLING DATE: 22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  : Sequence 1, Application US/09469522
: Fatent No. USZ0020151461A1
: GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILLING DATE: +Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4250 TGAGGATTATTGATAGT 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44.49 ICAGGALLALIGALACT 3455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Xu. Hong.Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CllY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US 09:469 522 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <del>2</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
```

```
958 TCTAAACCATACGAAGAAATITATCITAAAAATAAAGATCTAGATAAAAATIATITIG 1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            550 TGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAATTTTATA 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           610 CCTTTTATGAATTCTC11GGACTTGTAACATCTAA1GGACTTCCAGAGGTTGAAAATCTT 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             670 TCTAAACGATACGAAGATTTATCTTAAAAATAAAGATCTAGATGAAAAGAATTAGAAGATTTTG 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70 ACTGAGCTACAGAAAAAGATAGAAATCAGTGTCCATAAATTGTTTACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        190 IIGIIIGCACICIICAGCAAATIGGAAAGGCALGIGAACTIALALALALITGGCAACACC 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  538 AGCAGTICGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACA 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             370 TTAATGCTATGTGTCGTTGACTATTTATTAAACTCLCACCTCCCATGTTGAAAAAA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       658 TIAATGCIATGTGCCTIGACTATTTTATIAAACTCTCACCTGCCATG11GCTCAAAGAA 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 430 CCATATAAAACAGCTGTTATACCCATTAATGCTTCACTTCGAACACCCAAACAAGTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            718 CCATATAAAACAGCTGTTATACCCATTAATGGTTCACCTCGAACACCCAGGCGAGGTCAG 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  490 AACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             778 ABCAGGAGTIGCACGGATAGCAAACAACTIGGAAATGATACAAAATTATTGAAGTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 838 TGTAAAGAACATGAATGTAATATAGAGGTGAAAAATGTTTATTTCAAAAATTTTATA 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       790 CGAAAAAGTAAGCTTGATGAAGAAGGTGAATGTAATTCCTGCACACACTCCAGTTAGGACT 849
                                                                                                                                                                                                                                                                                                                                                                                     130 ATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAGTATATGTA 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          250 AGCAGTTCGATATCTAGTGAAATAAATTCTGGATTGGTAAAAAGTTTCTTGGATGAAA 309
                                                                                                                                                                                                                                                                                                      0; Caps
                                                                                                                                                                                                                                                                                                                                               10 CTGTGGGGAATCTGTATCTTTATTGCAGTTGACCTAGATGAGATGTCGTTTTT 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 10; Length 4555;
                                                                                                                                                                                                                                                                                                         0; Indets
                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                            99.7%; Score 3257;
100.0%; Pred. No. 0
                                                                                                                                                                        GCATION: 7.,2790
SEQUENCE DESCRIPTION: SEQ 1D NO: 1:
                                          LENGTH: 3555 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                    Matches 3257; Conservative
                                                                                                            TOPOLOGY: linear
                                                                                                                                                      NAME/KEY: CUS
                                                                                                                                                                                                                                                                                Host Local Similarity
                                                                                                                           FEATURE
                                                                                                                                                                                                                   US-09-469-522-1
                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                င်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
```

9 7 9	57 29 17	89 77	₹ €	60 7¢	69 57	29 17	89 77	49 37	09 76	69 57	29 17`	99	49 37	60 7.6	69 57	29 17	68
ACCTTCA 90 	3AAA 12 3GGT 10      9GGT 13	ATG 10:	-	CACA 12       ACA 14	3ATT 15	2AAA 13: 	ATCGAATC 138          ATCGAATC 16	AAAG 14  11  AAAG 17	CAG 15       CAG 17	661 15 	CCAG 16:	CTA 16	TAGAA 17.         TAGAA 20:	KGAC 1809 	ATA 1	TCAGGAG 19            TCAGGAG 22	FAAC 19
0 - 5 - F	<b>3</b> 2 2 2 2 2 3 3	ATGAGT           CGAGTA	CAAACTT	AATGGCC           AATGGCC	PCCATCGATT HILLIII CCCATGGATT	ITITATCAAA 	ACATOGA            -	ACAATCA             ACAATCA	recrere 	SAAAAAA 	AGCCTTC              NGCCTTC	STATCGGCTA TITTITIT	A I I	ZATGAGAGAC HILLILLI YATGAGAGAC	TGAAGAAT TTTTTTT	77 - 75	ATTCIAL
AAGTGA AAGTGA AAGAAAG	AGARAG AGCTGTC 	GTATTAC              GTATTAC	TTTTAGG         TTTTAGG	TGAGGTTGTAATGGCCACA 	Grétim HIIII GICTIT	CGANAG 111111 CGAAAG	ATGTGA          ATGTGA	TAITTAA/         TATTAA/	TAATCT:             AATCT:	TCCAAA         TCCAAA	AACCTC          AACCTC	PAAAAAGTGTA                 AAAAAGTGTA	GCACCC2 	TCAACTCA TTTTTTT	GCAAAGTO TITITITI GCAAAGTO	TCATGCT             CATGCTC	TTATAGTA
	ATCCAAAAGAA FTGCTAAAAGCT FTGCTAAAGCT	TTOGOTT 	FTCAAAA 	$\vdash$ $ \vdash$	7AGA4111 	ACAAAGTGATGGAAGTT 	FAGAACG FELLIT FAGAACG	TTGATCT 	STOCTOT 	AAGATC 	ZACAAGE HHHHH ACAAGG	TTATAA               TTATAA	GICTGA          epetea	2 = 5	SCATATG	TTCC 1111	GATTCTAT
TTTTAA/ HILLHI TTTTAA/ CAGTGA/	DIGCAÇAGIGAAT FAAAGAGAAATTT FIIIIIIIIIII FAAAGAGAATIT	TTGGAG           TGGAGI	TATCCAT              ATCCAT	IATTGGCGTGCGCTC 	FCTGCAACAGAFT FGFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	EEE	AACATTI            AACATTI	CTTTAT	TGAATCTGCTTGTCCTCTTAATCTTCCTCTCCAG	TCTCCTGTAAGALCTCCAAAGAAAAAGI 	CAGAGAG	CICITICACIGITITAL 	GCCITCI 	TGCAGAZ 	ITCCATGTATGGCAIAL HITHIHHHHH HICCATGTATGGCATAP	ACAAGGATG 	¥
A:GAACACTATCCAACAALAATGATCTTTAAATTCACGAAGTGATAATGAACACTATTAAATTCACGAAGTGATAATGATCATTTAAATTCAGCAAGTGATAATAATAATGATCATTTAAATTCAGCAAGTGATAAATAA	AACTGGA TTTAAAG TTTAAAG	~ C	AAATCAGAAGAAGAATATCCATTCAAAATTTTAGCAAACTTCTG	TTATTGG           AIIGG		TGATT	AGAAGGCAACTTGACAAGAGAAATGATAAAACATTTAGAACGAFGFGAACATTTTTTTTTT	URGAALCCCTTGCATGGCTCTCACATTCACCTTTATTTGATCTTATTAAACAATCAAAG 	TTGAAT           TTGAAT	ATCTTT	ACGRETICT AATTET ACTERAALGEAGAGAGAAGAAGAAGGGGGGCTT 		ISIGAAGGCIICIGICIGAGGACCCGG 	FFCCAGCACACCPGCAGAATGAG 	GITCCA           GITCCA	GTAACAGCATA  - - - - - - - - - - - - - - - - - - -	AGAAGAGGAG
CAA11AA 	SCIATTIAACAA FAGATACATCTT FAGGATACATCTT	CAGGGAT  - - - - - - - - - - - - - - - - - - -	GAAGAAC FEFFFF GAAGAAC	VIATGECTI 	TOAGAATO	IAAAAGGGTI HIHHHH IAAAAGGCHI	AGAGAAI  - - - - - - - - - - - - - - - - - - -	CTCTCAC	SAPPGABAAGBACCAACTGATCACTT  - - - - - - - - - - - - - - - - - -	AATCACACTACAACAAAATATGTATCTT 	TOTACTO               CTACTO	AGAAGCCATTGAAATCTACCTG 	IAAATACACITI 	FFCCAGG FFFFFFF FFCCAGG	GGACCAAATTAIGALGIGI: 	ATTGTAA            ATTGTAA	FCAA
GAACACTATCTAAC HILLIIIIII IGAACACTATCCAAC ATCTGATTTCCTATT		GGATICA [[][]] [GGATICA	AAATCA 11111 AAA1CA	TITCZ	ACATOTA ACATOTA	AATTTA	TTGACA         TTGACA	GCATGG           GCATGG	CCAACT	HILLI GCAGCA	CTAAAT 	TTGAAA 	SCINAAI HHHH SCINAAI	TGGACCCTI THILLIH TGGACCCTI	CAAAII	VIICAAAAICAII VIIVIIIIII VIICAAAAICAII	1GTTTTGA
SAACACI SAACACI TCIGATI	GAAAATGTGATTT AGAGTGAAGGATA HIHHHHHHHH	GAAATI	GAATCCATGCTT.	AATGACAACATT	FAGGAGAAGTAGATGT FELFILLITITITI FAGGAAAGTAGATGT	CTGAATGTGCTTAATTT    -  -  -	NGGCAAC LTTTT NGGCAAC	A L C C C T T T T T T T T T T T T T T T T	NGAAGGA HTTTTI	ICACACT 	racenti i i i i i i i i racenti	SAAGCCA              SAAGCCA	AICICCGGCIA                         AICICCGGCIA	L'ATCTGC L'ELLET TCAICTGC		TAAATTO	JAAAGGI
GAA GAA	GAAAA AGAG 	1616 1111 1616			<u> </u>	CTGAN    -      C  GAA	9 = 9	∢ ∢	$\tilde{\omega} - \tilde{c}$	M M.	10 A	ACCC   1   1   ACCC	6001 11.11 14.11	CALAL	AGGCA TTTT AGGCA	GACCT LILLI GACCT	ACALL
856 1148 916	1198 970 1258	1030	1090	1150	1210	1.271	1440	1553	24.7.1	1513	1570 1858	1640 1918	1690 1978	1750	181 8602	E 80 F7	
हें हैं है	i 3 i	ð ±	ŝ i	ð II	5 3	5 3	ਤੇ ਤੇ	5 3	う 豊	÷	5 3	ŝ ŝ	ਤੇ ਵੀ	SĒ	5 ±	3 3	3

```
3010 TGCAAAAATGGATATTATAATAGAAATTAGAAAATTACTAATTTTACACTTAGATTTT (* 3069)
                                                                                                                                          2050 APPETETAAAAAAAAAAAATIGITGAAGGGGITIAGAAGTILGELAGIIGAAATIA 2109
                                                                                                                                                                                     2338 ACCITGICACCAAIACCICAGAIICCICGAAGCCCIIACAAGIITGCIAGIICACCIIA 2367
                                                                                                                                                                                                                         2110 OGGATHOGIGRAGGAAGATOTAFAITHGAGGGGGGAAGAGIGGATATAAAAHHGAGAA 2169
                                                                                                                                                                                                                                                                                                                               2938 ATTGTTTGGGTGATTCCTAAGCCACTIGAAATGLIAGTTGTTTTTATTTATACAAGATTG 2997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2240 CHCCHCAAAAGAAGTGCFGAAGGAAGGAACCTCCTAAAGGACTGAAAAAAGTACCTTT 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2638 GATATTGAAGGATGAGATGAAGGAGATGGAAGTAAAGATCTGCCAGGAGGAGTCCAAATTI 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2470 GATACCATGGATACCTPCAAACAAGGAAGAAATGAGGATCTCAGGACCTTGCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2530 TGTGTACACTCTGGATTCATTGTCTCTCACAGAGTGTATAACTTTCCCAGGTTC 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2590 menneangenaannaannang menaengenen pingerosahanaaane coordinaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2878 TGTTTATGGGGAGTTAATATGTGTGTGTTTTTTGGGGATATAAAATGTGGAAATGCA 2637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2650 APPOPEROGEDANYOFFAAGGGAGTTGAAATGITAGTGATTGFTATTATAGAAGATTG 2709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Z710 AAAATUTGTGTGTAAAFGUGGGGATTTAAAAAGIISTAGGASATIGIITGGTGTGCAAAG 2769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2770 TAAAATTGCTGTGCTTTATGGATAGTAAGAATGGCCCTAGAGTGGGAGTGTTGATAAGGC 2829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3058 TAAAATIGCIGTGCTITTATGGATAGTAGAATGGGCCTAGAGIGGGAGTCCIGATAACCC 3117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2890 TATTAATTIATATGIATATTITIAATTITAACAIGAACACCCTIAGAAAATGIGICCIA 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2998 AAAATCTTGTGTAAATCC1GCCA1:11AAAAAGTTGTAGCAGATTGTTGCTGCTTGCAAAG
                                                            2398 CGGATTCCTGGAGGGAACATCTATATTTCACCCTTGAAGACTCCATATAAAATTTCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2170 GGTCTGCCAACAACAAAAATGACTCCAAGAICAAGAAGAICTAGAATGTTGGTGAA
                                                                                                                                                                                                                                                                                                                                                                                           2230 TCATTCGGGGGCTTCTGAGAAGTTCCAGAAATAAATCAGATGGTATGTAAGAGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                   2350 GATATTGAAGGATGAGATGAAGGAAGTAAAGTAAACATGTGGGAGGAGAGTCGAAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2410 CAGCAGAAACHGGCAGAAATGACHTCHACHGGAACACGGAAHGCAAAAGGAGAAAHGAAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2698 CAGCAGAAACTGGCAGAATGACTTCTACTCGAACACGAATGCAAAAGCAGAAATGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2840 AGGCCTGTCTGACTACTTTGCCTTCTTTTGTAGCATATAGGTCATGTTTGCTCTTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2950 TCTATCTTCCAAATGCAATTTGALIGAGTGCCCATICACCAAAATTAIGGIGAAGIG
                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                  0
1
                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                              \tilde{O}
                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                             ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \circ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ō
```

Tue Jan 21 10:03:09 2003

	UV         610 CCTTTALGAATTCTCTGGAACTTGTAAGGACTTCTAGAAATTTTTGTGAAAATTTTTTTT	OP         850 CTTATGAACACTATCCAACAATTAATGATTTTAAATTCAGTAAGTGATCAACTTTCA 909           1269 CTTATGAACACTATTTTTTTTTTTTTTTTTTTTTTTTTT	OY         10.80 TGTGTCGAAATFGGALACAGACGATACAAACTTGGAGTTCTGTLGTALTATGTGTAATG 10B9           Db         1449 TGTGTCGAAATTGGATGCAATACAAACTTGGAGTTGCTTGTATTATGTAAGTAA	QY         1150 AATGACAACATTTTCATATGTCTTTATGGCGTGCGCTCTTGAGTTGTGAGTTGTGAGTTTTTTTT	1270 CTGAATGEGCTTAATTTAAAAGCCTTTGATTTTTAAAAGTGATGAAAGTTTTAECAAA HEHELLI HERAAAGTTAAAAGTTTGAAAAGTTTGAAAAGTTGAAAAGTTGAAAAGTGGAAAGTTGAAAAGTGGAAAAGTGAAAAGTGAAAAGTTTAGAAAGAGAAGTTGAAAAGTGAAAAGATGAAAAGAGAAAGTGAAAAGAGAAAGAGAAAGAGAAAGAGAAAGAGAAAGAGAAAGAG	Oy 1390 AUGGAVICCTICGATGCTCTCAGATTCACTTTATTTCATCTTATAAACAATCAAAG 1449 (FILLITITITITITITITITITITITITITITITITITIT
	Cand Db Oy Cand Db Oy Oy Cand Ob Oy Oy Oy Oy Oy Ob Op	5 2 5 2 5 4	6 6 8	5666	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Oy
145 1228 IGCAAAAALGDALAHAAAAALIAGAAAAAAAHACTAATITIAGACATAGATTT 357  59 9020 ATTITACTATGGAATCTGATATACTGGGGGCTTGTTGTATAAAATTTTGGTTTTAATTA 3129  1111111111111111111111111111111111	PESULE 6. IN 2019 944 54 143 IN 2019 954 54 1445 IN 2019 954 1445 I	FROM APPLICATION NUMBER: 05757234,034 FROM APPLICATION NUMBER: 05769234,509 FROM FILING DATE: 2000-09-22 FROM FILING DATE: 2000-09-22 FROM APPLICATION NUMBER: 05769/24,567 FROM FILING DATE: 2000-09-22 FROM APPLICATION NUMBER: 05769/24,567 FROM FILING: 1ATE: 2000-09-22 SOFTWARE: DATE: 1992 SOFTWARE: DATE: 10 NOS: 1/92 SOFTWARE: 10 NOS: 1/92 S	oat ch cal s 4257 6767 6161	20 ACTOMOTACAGANACATAGANACATGAGATOGAS TAGATGAGAGAGAGAGAGAGAGAGA 1 ACTOMOTACATAGANACATAGANAGAA 1 HILLIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI	190 TISTITIONACTORAN CANANCTERIANGE CANONCTAINACH AN CANONCTAINACTAINACH AN CANONCTAINACH A	ey - 810 iiilialiageyaaaggadaadialiacaaalggaagatgarciggigaliicalticag 369

```
7.11.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              222 + AGGCAITIGGACCAAATAIGAIGIGGIGCAIGIAHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1980 TORRICTTCATGCAGAGTGAAAACAATAATTTTAGAGTAATATTCCAGGGGGGT 2049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2469 AVCITGICACCAATACCICACATICCICGAAGCCCTAACAAGTTCCTAGTTCACCCTTA 2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.26. (ATAITGANGATONATGANGANGANGANGTANACANOTOTOTOGANGAGAGTOTONATTT 2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24.19 PAGCAGAAACTGGCAGAAYTGACTTCTACTCGAACACGGAATGCAAAAGCAGAAAATGAAY 2469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1809 ALGGAATOCCTTGCALGGCTCTCAGATTCACCTTTATTFGATGTLALTAAACAALCAAAG 1868
                                                                                                                           145 - GACCARGAAGACCAACTGATCACCTTGAATCTGCTTGTCCTTAATCTTGCLCCCAG 1509
                                                                                                                                                                                                                                                                      1929 AATAATCACACCAGCAGAATATGTATCTTTCTCCTGTAAGATCTCCAAAGAAAAAAAGGT 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1989 ICAACTACOCOTOTAAATTCTACTGCAAATGCAGGAGGAAGGAAGCTCAGGCTTGCAG 2048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1830 ACCAGANACCATIGAAATCTACTCTTTCACTGTTTATAAAAAGTGTATCGGCTA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2049 ACCCARAAROCATIGAAAICIACCICITICACIGITITATAAAAAAGIGIAICGGCIA 2108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1692 GPCHALPHORGCTAAATACACHIIGTGAACGCCTTCTGTGAGGAGCAGGAAAFTAGAA 1749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1250 CATATCATCTGGGACCTTTTTCCAGCACCCGGGAAGGAGTATGAACTCATGAGAGAC 1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1810 AGGCATTTGGACCAAATTATGATGTGTTCCATGTATGGCATATGCAAGTGAAGGAAATATA 1869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1870 GACCITAAATTCAAAATCAPECTAACAGATCTTCCTTCCTCATGCTGTTTAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2289 GACCTIAAATICAAAATCAIIGIAAAAGAATATAAAGGAATCTICCTCATGCIGTITCAGGAG 2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1930 ACATICAAACGIGTITIGAICAAAGAAGAGGAGIAIGAITCIAIIAIAGIATICIAIAAC 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2409 TOGGTOTTCATGCAGAGAGTGAAAATATTTTGGAGTATGCLEGGACGAGGCCCCT 2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2050 APELIGICACCAALACCICACATICCTCGAAGCCCTTACAAGTTTCCTAGTICACCCTTA 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2119 CGGATTCCTGGAGGGAACATCTATATTTCACCCTGAAGAGTCCATATAAAATTTCAGAA 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2529 CCCATTICCT CGAGGGAGATCTATATTTCACCCCTGAAGAGTCCATATAAAATTTCAGAA 2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2170 GGTGTGGGCAACAACAAAAATGAGTCCAAGATCAAGATCTTAGTATGAATTGGAA 2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2230 TO FIGURE GROUND THE GAGAGE FOR AGADAM FRANCE GATE FOR THE FORMACE GOOD FORMACE FOR THE FORMACE FOR THE FORMACE FORMACE FOR THE FORMACE FORMACE FOR THE FORMACE FORMACE FORMACE FOR THE FORMACE FOR THE FORMACE F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2290 GIGGICAAAAGAAGIGGIGAAGGAAGCAACCICCIAAAACAATGAAAAAATAAGGIII 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2704 GIGGICAAAAGAAGIGGIGAAGGAAGGAAGCGTGCTAAAAGGACIGAAAAACIAGGCITT 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2475 GATAGGATGGATAGCTCAAAGAAGAAGAAATGAGGATCTCAGGACGTTGGTGGACAC 2529
                                                                                                                                                                                                                                                                                                                                                                                                         210 - GCCIATATOTOGGGGTAAATACACITTGTGAAGGCCTTCTGTGTGTGAGGAGCACCAGAATAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2589 GSTCTGCCAACAACAACAAAAAGACTCCAAGATCAAGAACTTAGTATCAATTGGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2823 CASTARAANTGSNARAADIGATTITATIOGAACAGGAATGCAAAAGAGAAAAIGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
```

```
3369 TCFFTTTCGAAATGCAATFGATTGACTGCCATTCACCAAAATTATCCGAAACTTTTTC 3428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1949 AATAAAAGCTGGAAGCAAAGTATAAGCATATGATGATGATAGTACTGAAAGAGTIG 3608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2590 TGTTTATGGGGGGGATTTAATATGTTGAGGTGTTTTTGTGGATATAAAATGTGGAGATATAA 2649
                                                                                                                                                                                         3069 ATTGTTTGGGTGATTCCTAAGCCACTTGAAATGTTAGTCATTGTTATATACAAGALIG 3128
                                                                                                                                                                                                                                                                                      2710 AAAATCTTGTGTAAAATCCTGCCATTTAAAAAGTTGTAGCAGATTGTTTGCTTTTGCAAAG 2759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2890 TATTAATTTTATATGTATATTTTTAACATGAACGCTTAGAAAAIGIGLOOIA 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3010 TGCAAAAATGGATATTATTAGAAATTAGAAAAAATACTAATTITAGACATTAGATTTT 3069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3429 TGCAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTACACATTAGALTTT 3488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3070 ATTTTACTATTGGAATGTGATATACTGTGTGTTTTTATAAAATTTTGTTATTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4489 ATTTACTATTGGAATCTGATATACTGTGTTGTTTTATAAATTTTGCTTTTAATTA 3548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3130 AATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACTACTACTAGAACAGALLIG 3189
2530 TGTGTACACCTCTGGATTCATTGTCTCTCACAGATGTGACTGTALAACTTTGCCAGGTTG
                                                                                                                                                                                                                                                                                                                                                                                      2830 AGGCCTGTCTGACTACTTTGCTTTTTGTAGCAIAIAGGTGATGTTTGCJCTTGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2950 TOTATOTTOCAAATGGAATTTGATTGAGTGCCCATTCACCAAAATTALGCLGAAGLCLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3190 AIACCTCAGAATGIAAAAGAACTIACTGATIAITITCTICATCCAACTIATGTTTTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Benedict, William F.
Zhou, Yunli
IITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3250 TCACCATTATTCATACT 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3669 TCAGGATTATIGATAGT 3685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hong-Ji
Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 5u,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7
                                                                                                                                                                                                                                         ವ_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
490 AATAGGAGGGACGGATAGGAAAQAAGTAGAAAATGATAGAAGAATTATTGAGGFFGTG 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.40 CVATATAAAAQAGTGTTATAGGGATTAATGGTTCAGTGGAAAGAGGGGAGGTCAG 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70 ACTGAGTACAGAAAAAATIAGAAATCAGTGCATAAATICHTTAACTTACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              130 AT FGAT ACCAGT ACCAAAGTTGATAATGCTATG FCAAGAGTGTTGAAGAAGTATGATGTA 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     190 TEGITE CAGENTICAGNAAATIGGAAAGGACATGTGAAACTTATATATTGACACAAACC 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      478 TEGLEFONACIO LO AGGAA FEGGAAGGAGA GEGAAGT NA LATALEGAGAAAA 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       310 11111A11AGGABAAGGBAAGIALACAAA1GGAAGATGATCTGGEGATTFCAGTTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               470 ITAATOOTAEGIGGIIGAGTAJIITAIJAAAGTGIGACCTCCCATGIIGCTCAAAGAA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           658 TTAATGCLATGTGTGCTTGACTATTTTATTAAACTCTCACCTGCCATGTTGCTGAAAGAA 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               550 IGTAAAGAACALGAATGTAATATAGATGAGGTGAAAAATGTTTATTGAAAAATTTTTATA 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           298 CHGTGGGGAATCHGTATTTATTGCAGCATTGACCTAGGTGATATGTGGTTCACTTTT 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ID PROTOCOGNATORICITATIONAGE OF TRANSPORTOR OF THE STATE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99.6%; Score 4253.8; DB 10; Longth 3554;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Indels
                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                          CURRENT APPLICATION TOWNS 18,729,7169, 522
PULLING DATE: AZ Dece 1959
CLASSIFICATION: + Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Hibler, David W.
RESISTRATION NUMBER, 41,671
REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                           COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC DOSZMS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE DESCRIPTION: SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER - 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
                                             MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: 512/418-3000
TELEPAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGIH: 4554 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILLING DATE: «Unknown.)
ALLORNEY/AGDINI INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMALION FOR SEQ ID NO. 50;
SEQUENCE CHARACTERISTICS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 185166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  116, 17
COMPUTER READABLE FORM:
                                                                                           COMPUTER: IBM PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 99.98
Matches 4255, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patrack: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US 09 469 522 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
```

```
1090 GAATCCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTACCAAACTTCTG 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1330 GCAGAAGGCAACTTGACAAGAAATGATAAAAACATTTAGAACGATGTGAACATCGAATC 1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1678 AIGGAAICCCIIGCAIGGCICICAGAIICACCTIIAITIGAICTIATIAAACAAICAAAG 1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  958 TOTAMACGATACGAMGAMATITATCTTAMAMATAMAGATCTAGATGCAMGATTATTTTG 1017
                                                                                                                                                                                                                                1150 AATGACAACATITITCATATGICTITATIGGCGTGCGCTCACGTTGTGAGGTTGTAATGGCCACA 1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1498 TATAGCAGAAGTACATCTCAGAAATCTTGAI ICHGGAACAGAITIGHCII HCCCARGGAIT 1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1270 CTGAATGTGGCTTAATTTAAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTAFCAAA 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1450 GACCGAGAAGGACCAACTGATCACCTIGAATCTGTTGTCTTAATCTTCCTCTCCAG 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1858 TCAACTAGGGGTGTAAATTCTACTGCAAATGGAGAGAAGAAGAAGAAGTTAAGGTTGGAG 1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1630 ACCCAGAAGCCATTGAAATCTACCTCTTTTAATTTTAAAAAAAGTGTATCGGTA 1689
                                                                                                                                                                                                                                                                                                                                                                                                              1138 GIIAIGAAGAGIALCGAAGAAIIAAIGAIGAIGIIAAAIIGAAGAAGAAGAA AACCTICA 1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1258 AGAGTGAAGGATATAGGATACATCTTTAAAGAGAAAATTTGCTAAAACTGTGGGACAGGGT 1417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1030 TGTGTGGAAATTGGALGACAGGATACAAACTTGGAGTTCGCTTGTATTACCAGAATG TUB9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1318 TGTGTCGAAATTGGATCACAGGATACAAACTTGGAGTTCGCTTGTATTACGAGTAATG 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1738 GACCGAGAAGGACCAACLGAFCACCTTGAALCTGCTTGFCTTAATCTTCCTGFCAG
                                                                                                                                                                                                        730 GATCATGATAAAACTOTTCAGACTGATTGTAIAGAGAGTTT110AAACACACAGAAAAAACACACACAA
                                                                                                                                                                                                                                                                                        790 CGAAAAAGTAACCITGATGAAGAGGGAAFGIAALIDO LCCACACACHCCAGHTAGGACH 849
                                                                                                                                                                                                                                                                                                                                                                     850 GTTATGAACACTATCCAACAATTAATGATTITAAATTCAGTAAGTGATGAAGTGA 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                       610 CCTTTATGAATICTCTTGGACHGJAACAACTAALGGACHCAAGAATICT 669
                                                                                 898 CCTTTTATGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTT 957
                                                                                                                        670 ICHABASSAIASGAAGAAATILAF ILAAAAATAAAGADTAGAHA AAGALIATILG 729
838 TOTAAAGAACATGAATGTATATATATGATGAGGTGAAAAATGTTTATTTATA 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1570 TCAACTACGCG1G1AAATTCTAGTGCAAATGCAGACACACAGAAACAACTAAACT FCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    970 AGAGTGAAGGATATAGGATACATCTTTAAAGAAAATITGCTAAAGCTGTGGGACAGGT
                                                                                                                                              . . . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                               <u>G</u>
                                                                                                                                                                                                                                                                                                                            G
                                                                                                                                                                                                                                                                                                                                                                                                            Ľ
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
```

```
14.9 GCCIATO ICCOGGO AAATAGAGTII LO IGAAGGGGTTGTGTGTGTGAGGGAGGAGAATTAGAA 1749
                                                                                                                                                                                                                    1750 CATATOR GRANDER CONTINUE AND ACCOMPAGA ROAGEA TO A CONTIGA A 
                                                                                                                                                                                                                                                                                                                              215% GACCTTAAATTCAAAATCATTGTAAACAGCATACAAGGATCTTCCTCATGCTGTTCAGGAG 2217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1930 ACALITAAACGIGILIIGALCAAAGAAGAGGAGTATGATTATAGTATTGTATAAC 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2218 ACALICAAAQCECTTTCATCAAAGAAGAGGGIATIGATTCTATTATAGTATEGTATAAC 2277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1990 TOGGTOTICALGOAGAGAGTGAAAAAAAAATTITGGAGTAGGITGGAGGGGGGGT 2049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2050 ACCIDICACCAATACCTCACATICCTCGAAGCCTTACAAGTTTCCTAGTTCACCCTTA 2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2113 GGGATTGFTGGAGGGAACATCTATATTTCACCCTGAAGAGTCCATATAAAATTTCAGAA 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2129 GGICTGCCAACACCAAAAAATGACTCCAAGAICAAGATCTTAGTATCAATGATGAA 2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2458 GGLGLGGGAACAACAAAAAFGACTICCAAGATGAAGAAFCTTAGTATGATTGATTGGTGAA 2517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2578 GLGCLCAAAAGAAGFGCFGAAGGAAGCAACGTGGTAAAGCACFGAAAAAACTAGGCFFF 2637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2638 GATALIGAAGGAPGAGAPGAAGGAGAPGAAGAACAPAACAPCCCAGGAGAGFCCCAAATTT 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2478 GATAGRAFIGGATACPTCAAAPAAGGAAATGAGGATCFTCAAGGAGFGFTGGGAGAG 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25 00 TGTGTACACCTCTGGATTCATTGTCTCTCAGGGGGTGTATAACTTTCCCAGGTLC 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2530 IGTHIAIGGGGAGAITHAATATGTTGGGGGGGTGTTTGGGGATATAAAAFGFGGAGAFGA 2649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24198 AGGCAL FLGGACCAAATTALGATGLGFTCCATGTATGGCATATGCAAGLGAAGATATA 2157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GASSITAAATISAAAAISATIGIAAQAGATACAAGGATSITGSICATGSTGTGTSTSAGGAG 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2338 ACCITATORCOANIACCICACATICCTCGAAGCCCTIACAAGTITCCTAGTICACCCTIA 2397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22 to TCALICGGRAPHIPTARABARTIPPAGAAATAAATCAGATCAGATGATAAGGAGGGAGGGT 2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2698 CAGCAGAAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAAGGAAAAATGAAT 2757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2710 AAAATOTTGTGTAAATCCTGCCATTIAAAAAGTTGTAGGAGATTGTTGTTGTGTGTGGAAAA 2769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2650 ALIGITIGGGIGATICCFAAGCCAGIFGAAATGTTAGTCATTAFTAFATAGAAGATTG 2709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2-450 GATATTSAAGGATCAGATGAAGCAGATGGAAGTAAACATGTCCCAGGAGAGTCCAAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ì
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ē
```

```
3357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3478 ATACCTCAGAATGTAAAAGAACTTACTGATTATTTTCTTCATCCAACTTATGTTTTAAA 3537
                                                 2770 TAAAATTOOTGTGTTTTATGGATAGTAABAATGGGGGTAGAGTGGGAGTOTLOALAAGS
                                                                                                                             2890 TATTAATTTATATGTATATTTTTTAATTTAACATGAACACCCTTAGAAAATGTGTGTA
                                                                                                                                                                                                                                                        3178 TATTAATTTATATGTATATTTTTTAATTTAACAGGGCCTTAGAAAAIGTCTCCIA
                                                                                                                                                                                                                                                                                                                                          3238 TCTAICTECCAAATGCAATIIGAIIGAGIGEGCAIICACCAAAATAAFCGGAACTGTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3190 ATACCICAGAAIGTAAAAGAACTIACIGALTALITICIICCATCCAACTTAIGTITITAAA
                                                                                                  2830 AGGARANGARAMARTIGARTIFOTITIFGIAGGAIAIAGGIGAIGITIGATITI
                                                                                                                                                                                                                                                                                                                 2950 TCTATCTHCCAAALGCAATLIGALLGACTGCCCALLCACCAAAATTALGCLGAACTLC
                                                                                                                                                                                                                                                                                                                                                                                                                    3010 IGCAAAAATGGATATTATTAGAAATTAGAAAAAATTACTAATTTTAGAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3298 TGCAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTACACATTAGATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ROPO ATTITACIALISMANICISAIAIACISTICITITIATAAAATTITAATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3358 ATTITACTATIGGAATCIGATATACEGIGGIGGITGITITATAAAAITITGCITTIAAIIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3418 AATAAAARCTGGAAGCAAAGTATAAGCATATGATACTATGATACTACTGAAACAGAGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RETINORLASTOMA TUMOF SUPPRESSOR
                           OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE, TOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 38, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhou, Yunli
TITLE OF INVENTION: MODIFIED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PILLING DATE: AUGNOVEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3250 TGAGGATTATTGATAGT 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3538 TGAGGATIAITGAIAGI 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-469-522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
---
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
```

```
LOCATION: 7.,2559
SEQUENCE DESCRIPTION: SEQ TO NO. 38:
TELEPHONE: 512/418 3000
                                                                                  LENGTH: 4424 base pairs
                  FELEFRAX: 512/474 7577
                                      INFORMATION FOR SEQ ID NO: 48;
SEQUENCE CHARACTERISTICS;
                                                                                                                           STRANDEDNESS: single
                                                                                                         IYPE: nucleic acid
                                                                                                                                                  robolou?Y: linear
                                                                                                                                                                                              NAME/KEY: CDS
                                                                                                                                                                         FEATURE
                                                                                                                                                                                                                                                           UP 469 522:48
```

Ċ

890 ATTACAAATGGAAGATGATCTGGTGATTTCATTTCAGTAATGCTATGTGTGTCTTGACTA 449 574 AMARCANTIGAAAAARCHTIALITCAAAAATTITATAYCTTTATGAATTCTCTTGGGCT 632 444 ATTACAAATGGAAGATGATCTGGTGTTTCATTTCAGTTAATGCTATGTGTTGACTA 392 59.E. 1111A11AAACHCHPACTICCOCAIGHGCHCAAAGAACAATATAAAAGAGTTATACC 452 453 CATTAATGGTTCACCTCGAACACCGGGGGGGGGGGAACAGGAGTGCACGGATAGCAAA 512 75.4 TOATTOTATAGAMAGTITIGAAACAGAGAGACACGAAAAAGTAACCITGAFGAAGA 812 93 AATCAGTGCCATAAATTGTTTAACTTACTAAAAGAAATTGATACGAGTACCAAAAGTTGA 152 15.4 TAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTTTGCTGTGTGAGCAAATT 212 213 GGAAAGGAGALGTGAACTTATATATTTGACAGAAGCGAGGTFGGATATGTAGTGAAAT 272 22.8. AAATTGFGATTGGGGGTAAAAGTTTGTTGGATGAGATTTTTATTAGGTAAAAGGGGAAGT 33.2 430 AAATHOFGGALIIGGEGCTAAAAGTITTCI LGGALGACATFFTTATFAGCFAAAGGGGAAGT 389 450 TTTTATTAAACTCTCACCTCCCATGTTGCTCAAAGAACCATATAAAACAGTGTTATACC 509 5.1.4. ACAACTAGAAAATGATACAAGAATTATTGAAGTCCTCTGTAAAGGACATGAATGTAATAT 57.2 6 40 AGATGAGGTGAAAAATGITIAITICAAAAATTTTATAGCTTTTATGAATTGTCTGGGGT 689 633 BSTAACATCTAATGGACTTCCAGGTTGAAAATCTTTCTAAAAGGATACGAAGAATTTA 692 693 TCTTAAAAATAAAGATCTAGATGCAAGATTATTTTGGATCATGATAAAACTCTTCAGA 752 810 IGAITCTATAGAPACTITIGAAAGACAGAGAACACAGGAAAAAGTAACCTIGATGAAGA 869 90 IOCTGAGGTCGACCTAGAEGAGATGTCGTTCACITTTACTGAGCTACAGAAAAACATAGA 149 150 ANTOAGTGTGCATAAATTGTTTAAGTTACAAAAAAATTGATAGGAGTACGAAAGTTGA 209 33 TOPAGPAGITGACCIAGALGAGATGICGITCACTTTTACTGAGCIACAGAAAAACATAGA 92 98.8%; Smore 3226; DB 10; Length 3323; 99.8%; Pred. No. 0; Indels Mismatches Conservative Local Similarity Matches 4229; Querry Materia <u>-</u> 흎 Ξ â Š = 7. Ē 5 3 Š 3 ÷ 5 ž

```
993 CTTTAAAGAGAAATTTGCTAAAGCTGTGGGGATGGGGTTGTGGGAAATTGGATGAGAGG 1052
                                                                                                                                                                                                                                                                                                                                                                                                                                             050 CITTAAAGAGAAATIIGGIAAAGGIGIGGGAAAGGIGGIGGAAAAIGGAAATIAGAAFAGAGGI ILA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1053 ATACAAACTIGGAGIIFGCTIGIATTACCGAGTAATGGAATCCAIGCTIAAATCAGAAGA 1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HEFFELLER FELLER FELLER FELLER FELLER FELLER FELLER FELLER FELLER FALSE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1410 AATGATAAAACATTTAGAACGATGTGAACATGGAATCATGGAATCCTTGCATGGCTCTC 1469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1590 GTATCTTTCTCCTGTAAGATCTCCAAAGAAAAGGTTCAACTAGGGTGTAAATTCTAC 1649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1593 TGCAAATGCAGAGACACAAGCAACCTCGAGAGGGAGAGGGAGAATTGAAATGTAC 1652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1653 CPCTCTTTCACTGTTTTATAAAAAGTGTATCGGCTFAGGGFATCTCGGCTTAAATACACT 1712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1713 TTGTGAACGCCTTGTCTGTCTGACCCAGAATTAGAACATGTCATCTGGACCCTTTTCCA 1772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1773 GCACACCCTGCAGAATGAGTATGAACTCATGAGAGAAATGGATTTGGAPPAAATTATGAT 1832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1830 GCACACOTTGCAGAATGAGTATGAACTCATGAGAAA AGGATTTGGACCAAATTATGAT T889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1893 AACAGCATACAAGGATCTTCCTCATGCTGTTCAGGAGATATCAAACGTGTTTTGATCAA 1952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1113 AGAACGALFAFGGALFFAAATHTTAGGAAATHCHGAATGAGAAATHTHFATATGTC 1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1233 TOFFGATHORGGAACAGATHGFOFFTTFCCALGGAFFOFGAHOFGATHAAAAGC 1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1293 CTTTGATTTTLACAAAGIGA FGGAAGI FLIATCAAAGGAGAAAGGAALTGAGAAGAGA - 1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1350 CPTTGATTFFTGCAAAGFGAFGGAAGTFTTATCAAAGCAGAAACCAAACTTGACAAAAAA 1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1353 AATGATAAAACATITAGAAAGATGTGAACATGGAATCATGGAATCC TGCATGGCTCTC 1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1413 AGATTCACCTTTATTLGAFCTTATTAACAATCAAAGGAGAGAGAGAGGAGAAGGALGALGA 1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1533 GIAICTITCTCCGTGTAAGATCTCCAAAGAAAAAAGGTTCAACTACGCGTGTAAATTCTAC 1592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1890 GIGITGCATGIATGGCATATGCAAAGTGAAQAATATAGAGCTTAAATTCAAAATGATGT 1945
                                                                                                                                                                                                                                                           990 CAACTGCACAGTGAALGCAAAAAAAAAGTATACTGAAAAGAGTGAAAGGATATAGGALACAT 1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1173 TTTATIGGGGGGGGT IIGAGGIIGIAALGGGGA ARAIAG AGAAGIASATCICAGAA 1242
                                                  873. AATGATGTTTTAAATTGAGGAAGTGATGAGGTTGAGAAAATGTGATTTGGTTATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1833 GTGTTCCATGTATGCATATGCAAAGTGAAGAATATAGACCTTAAATTCAAAATGATTGT
                                                                                                                                                                             933 CAACTGCACAGTGAATCCAAAAGAAAGTATACTGAAAAGAGTGAAGGATATAGGATACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                      g
                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
```

```
1954 AGAAGAGAGIAIGATTCTATATATATTCTATAACTCGGTCTTCATGCAGAGTCTGAA 2012
                                                                  2013 AACAAATATITTGCACTATGCTCTCTCTCACGGGGGGGGTTAGCTTGACATACCTGACATT
                                                                                                                                                                                                                                                                                             2073 HOMIGGAAGGOOTTAGAAGITIGGIAGIFFAAFOOFFTAGAGAAFAAGAAGAAGAAGAAGAAGIA 2132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LIBB TATITCACCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTGCCAACACACAAAAAAT 2192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2193 GACTOCAMBATCHMAGIATCHMAGIATCATTCCTCACACTTCCCCACACTT 2252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2250 GACLOCAAGATCAAGAATCTTAGTATCAATGATGAATCATTCGGAAGTTTTTGAGAAGTT 2309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25 CONTANDADA LA DA DESTRUCTA PORTA DE CONTROCO CONTROCO CONTRA DA CONTRA DE CONTRA DA CONTRA DE CONTRA DE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2314 AAGGAAGGCTGGTAAAAGCAGTGAAAAAGTAGGGTTTGATATTGAAGGATGAGATGAAGC 2372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.17. JANGEARACCICCIARACCACIGARARATERAGGETTTGATATTGATGATGAGGATGAGGGTGAGGG 2429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2373 AGATOGAAGTAAAAGAFGTGCAGGAGAGTCCGAAATTTCAGGAGAAACTGGCAGAAATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24.50 AGATGGAAGTAAACATCTCCCAGGAGAGTCFAAATTTTGAGGAGAACTGGCAGAAATGAC 2489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2493 GGAAGAAAATGAGGATOTOAGGAOOTTGGTGGAOATGTGTACACCTCTGGATTCATTG 2552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2613 110ASP101TTTTG16GA1ATAAAATG16GAGA FGCAATTGFTTGGGTGATTGGTGATTGGTAAGGG 2672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2733 ANTAAGAATGGGCCFAGAGTGGGAGTGCTGATAACCCAGGGCTGTCTGACTTTGCCT 2852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2850 AGIAAGAGGCCCTAGAGTGGGAGTCCTGATAACCCAGGCCTGTCTGACTACTTTGCCT 2909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4033 ATTAGAAAAAAATTAAATTTTAGACATTAGATTTTATTTTTATTTTAGTATTGAAATCTGATATGAGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               +555 171012ACAGATGTGACTGTATAACHTTGCCAGGTTCTGTTFATGGCCACATTTAATATC 2612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2619 TOTOTCHOLD HILLING HILLING HILLING HILLING HILLING HILLING HILLING 1999 25 959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2673 ACTTRANATOTTACTCATTATTATTANACANAATTGAAAAATGTTGAAAATGGGGGGGGG 2732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2730 ACTIGAAATOTLAGTCAFTGFFALLIATACAAGATTCAAAAATOTTGFGFAAATTGFGCGA 2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2913 HAALISAAALGAACACCTTAGAAAATGTGTGCTATCTATCTATCCAAATGCAATTTGA 2972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1030 HIGAZIGOPOAFFOACPAAAFFAFOTGAAQHGTTGGAAAAAHGGATATTAGAA 3089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
```

```
3210 AACCATATGATACTATCATACTGAAACAGATTTCATACCTCAGAATGTAAAAGAAFT 3269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 O: Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40 GTTGACCTAGATGAGATGTGGTTCACTTTTACTGAGGTACAGAAAAGATAGAATTAGTT
                                                               3093 ACTGTGTGTTTTTTTTTTTTTTTTTTTTTATTAAATGCTGGAAGCAAAAA
                                                                                                                                                 3150 ACTGTGTGTTTTTATAAATTTTGCTTTTAAATAAAAAGCTGGAAGCAAAGAAT
                                                                                                                                                                                                                                  3213 TACTGATTATTTTCTTCATCCAACTTATGTTTTTAAA1GAGGATTATTGATAGT 3265
                                                                                                                                                                                                                                                      3270 TACTGATTATTTTCTTCATCCAACIIATGTTTTTAAATGAGGATTATTGATGGT 332*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 10; Length 3461;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Pred. No. v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98.8%; Score 3225.4;
100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
APPLICATION NUMBER: HS/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE DESCRIPTION: SEQ ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 22 Dec-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                               Sequence 40, Application US, 09469522
Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPERSONALL/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGIH: 3461 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILLING DATE, CERKLOWED ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 40: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                Xu, Honq-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shi-xae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 3226; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
21P: 77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SHOUFINGES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TINOH LANGE TO NOT THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                       RESULT 9
US-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                            qq.
                                                               δλ
                                                                                                                                                 ć
                                                                                                                                                                                          9
```

159 354	219	279	339 ·	399 594	459 654	519	579	639	699 894	759 954	819 1014	879 1074	939 1134		10 10	11119	
OSPOVALAAATTOTTTAAOSTTAAAAGAAATTGATACOACHTGCAAAGSTGATAATGCT   J. J. C. H. L. H.	A DEF "AAGACTGTTGAAGAAGTATGATGATGTTG 	ACATOLOGACI TATATTE DACAPAGOCAGONI CONTROLACIONAMANTOTE TELETETETE TELETETETE TELETETETE TELETETETET	GCATTGGTOCTAAAAGTTGTTGAATCACATTTTAT TEELLEELLEELLEELLEELLEELLEELLEELLEEL GCATTGGTOCEAAAAGTTGTGGAGAEGCATTELLEE	APSCAACATGATCTGGTGATTTCATTTCAGTTAATGCTATGTGTCTTGACTATTTTATT   1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	00 AAACHCICACTICCCALCH DOLCAAGAACCALALAAAACAGGICHTALACCCATTAAT 115111111111111111111111111111111	OBTITACTOBAN'N'YCAGGGAGGTCABAACAGTAGTGCACGGATAGCAAAAAACAA FELFELFELFELFELFELFELFELFELFELFELFELFELF	GAAAA GATACAA GAATAA TAA TAAGAAGTEETEETEETAAA GAACATGAATGAAATAATAGAGAGAGAAAA GATAAA GATAAA GAAAAA GATAAA GAAAAA GATAAA GAAAAA TAATAGAAGTI COO GOOGAAA GAAAA GATAAA TAATAGAAGI TOO GOOGAAAA GAAAA GATAAA TAATAGAAGI TOO GOOGAAA GAAAAA GAAAAA TAATAAAAAAAAAA	GIGAAAAA IGETTA FIGAAAAA FIFFA BOOTI ITA IGAA HOFOLIGGAO INGTAACA 	FOTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAAGGATAGGAAGAATTTTTAAA 	AATAAAAAPCTAGATGCAAAATTATTTTGGATCATGATAAAAACTCTTCAGACTGATTGTTCT 	PATATATATAT HITTAAACACAGAGAACAGGAAAAGTAACCT IGATGAAGAGGGAAT HITTHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	STAATFOCTPOOCACACACTECTAGGACTGTTATGAACACTATCCAACAATTAATGATGATG	ATTITAAATICGGGAAGGAACCAGAAAAATCGGATTTCGTATTTTAACAACTGC 	) ATAGGAALCGAAAAGAAAGTALACTGAAAAGAGGAAGGATATAGGATGATGGTTTTAAA 999 	GAGAAATTEGTIAANGTEEBGACAGGGTGEGTGGAATTGGATGATGGGGGATACAAA TITTITITITITITITITITITITITITITITITIT	OTTSBAGITCOCTEGEATECGASTAATGGAATCCATGCTTAAATCAAAAGAGGAACGA HILLIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	FIRECALICARAM CHAOCAAACHCIGAABGAAAGATHTICATAIGICTTIAITG FILLIHTICHTH CHAHLIGHTHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
100	16.0	415	475	545	400 5.95	46.0	5.1.6	580	640 8 45	700	76.0	820 1015	880 1675	940 1135	1000	1060 1255	11.20 1315
\$ ±	% <del>4</del>	65 EF	5 3	á á	25 23	3 <del>2</del>	47. 10b	5 G	5 3	5 £	5 8	\$ <del>4</del>	5 글	07 Eb	4 A	\$ £	55 136

```
16.74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1H54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1719
                  1780 CTGCAGAATGAGTATGAACTCATGAGAGAGGCATTTGGAGCGAATTATGATGTGTTTTC 1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2095 TACAAGGATCTTCCTCATGCTGTTCAGGAGACATTCAAAGGTGTTTTGATCAAAGAAGAG 2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2155 GAGTATGATTCTATAGTATTCTATAACTCGGTCTTCATGCAGAGACTGAAAAAT 2214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2215 ATTITICCACIATION TO CACCAGGGCCCONTACTION CACCAMIANO DISTRIBUTION CONTINUED 2274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23.35 CCCCIGANGACICCAIAIAAAA111CASAASSITISCCAACACIACIAA AAAAAAA1GA 10.04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2395 AGATCAAGAATCITAGIALCAATIGGIGAATCAITGGGGGGTTTTTGAGAAGTIGGAAA 2454
                                                                     1240 TCTGGAACAGAITTGTGTTTGCCATGGATTGTGAATGTGCTTAATTTAAAAGGCTTGAT 1299
                                                                                                                                          1495 ITTT ACAAAG IGATGGAAAG ITTT ATCAAAGGAGAAGGI AACT I GACAAAGAAA I GATA TESA
                                                                                                                                                                                                                                                                                  15.49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1600 GCAGAGAGAAGCAACTIGAGACTIFOAGAAAAAAAI IGAAAJITAAAATITITITI 1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1720 GGCCFFCFGFCFGAGCACCAGAATTAGAACATATCATCFGGACCTTFFFCAGGACACC 1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1840 ATGTATGGGATATGGAAAGTGAAGAATATAGAGTTTAAATTGAAAALGALTGTAAAAAAA 4899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1900 TACAAGGATCTTCCICAIGCIGIICAGGAGACAIICAAACGIGIITTGATCAAAGAAGA 1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2260 ATAMATCAGATGGIATGIAACAAGGAGGIGGIGGIGAAAAAAAAGAAGGIGGIGAAAAGAAAGAAAG
1180 GGGTGGGGTTTGAAGTTGTAATGGGCCAATAIACAAAATACAIACAICACAIACAATCTTGAT 1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1360 AAACATTTAGAACGATGTGAACATCGAATCATGGAATGCCTTGCATGTCTCAGATTCA
                                                                                                                                                                                                                                                 1555 AAACATITAGAACGALGIGAACAIGGAAIGAIGGAAIPPPIIGGIAIGGTICICAGAIIGA
                                                                                                                                                                                                                                                                                                       2035 ATGTATGCATATGCAAAGTGAAGATATAGACCTTAAALLCAAAATCALLGTAACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2080 AGCCCTTACAAGTITCCTAGITCACCCTTACGGAICCAGGGAACAACTAATTTCA
                                                                                         1795 GCAGAGACACAAGCAACCTCAGCCTTCCAGACCCAGAAGCCATTGAAATCTACCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1660 TCACTGTTTTATAAAAAGIGTAICGGMIAGGCIAICTGGGGIAAAIAMATIIGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2020 ATTITGCAGTALGCLICCACCAGGCCCMITAMMITGLMAMMATAMMITMMITMMA
                                                                                                                                                                                                                                                                                                                                                                                                                               1540 TCTCCTGTAAGATCTCCAAAGAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1975 CTGCAGAATGAGTAFGAACTCATGAGACAGACATTTGGACCAAATTALGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1960 GAGTATGATTGTATTATAGTATGTAGTTGGTTTTATGCAGAGACAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qc
                                   q
                                                                       Š
                                                                                                      q
                                                                                                                                          ^{\circ}_{\gamma}
                                                                                                                                                                           a
                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ं
```

```
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-469-522-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2800 ATGROOTAGAGTGGGAATOTGATAAPPAAGAGGAGTATATAGTGGATATTOTTGG 2859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             **55 TGATACTATCATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTACTGAT 3414
                                                                                                                                                                                                                                                                                           244 F. CGAACACGAATGCAAAAGCAGAAAAATGATAGGATGGTTGAAAGGAGGAAGAG 2499
                                                                                                                                                                                                                                                                                                                                                                                                                       2875 ATGITAGICATTGITATTATACAAGATIGAAAAICITGIGTAAATGCIGCGATTIAAAA 2934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2515 OCTOCIANACCACTGANANACTACGCTTTGATATTGAAGGATCAGATGAAGCAGATGGA 2574
                                                                                                                                                                                 238F AGTAAACATCTCCCAGGAGAGTCCAAATTTCAGCAGAAACTGGCAGAAATGACTTCTACT 2439
                                                                                                                                                                                                                                      ASTANA PLOTOGORGON PROCESSANTI CAGGAGAACTIGGGAGAATIGACTICTACTT 2634
                                                                                                                                                                                                                                                                                                                                            2631 CGAATACGAAAAGGAAAAATGAAAATGATAGCATGGATAGCTCAAACAAGGAAGAG 2694
                                                                                                                                                                                                                                                                                                                                                                                              250- AAATGAGGATCTCAGGACCTIGGTGGACTGTGTGTACACCTCTGGATTCATTGTCTCTCA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGATGTGACTGTATAACTTTGCCAGGTTGTGTTTATGGGCACATTTAAATATCTTCAGGT 2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2620 CITITICICCALAIAAAATGISCAGAISTAATISTTSSGTGATTSCIAASSCACITSAA 2679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2739 2580 AIGHAGHGAHGTHATTAFACAAGAHGAAAATCTTGTGTAAATCCTGCCATTTAAAA 2739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2740 ANTIHITAGOAGNIGITTFOOTOTOTOOAAAGTAAAATGOOFGTGOFTTATGGATAGTAAGA 2799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2980 POSATICACCAAAATTAICCIGAACICTICIGCAAAAAATGGATAITAITAGAAATTAGAA 3039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3.35 OCTIGITITALAAAATITTGCTTTTAATTAAATGCTGGAAGCAAAGTTTAAGCATA 3354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  +150 ISAIANIAIGATACTACTAGAAACAAATTICATACCTCAGAAATGTAAAAGAATTANTGAT 3219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1175 SCATECACAAAATTAICCEGAACTCTTCTGCAAAAATGGATATTATTAGAAATTAGAA 3234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2995 AIGGCCCIAGAGIGGAGICCIGAIAACCCAGGCCIGICTGACTTTGCCTTCTTTG
                                                                          5.40 AAAAAIIACIAAIITIACACAITAGATTITIATTITACIAITGGAATCIGATATACIGIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (2.35) AAAAATTACTAATTTTACACATTAGAATTTTATTTTACTATTGGAATCTGATATACTGTGT
4.29 TALTHETT CALCCAACTATGTTTT AAATCAGGATTATTGATAGT 3266
4.5 TALTHETT CALCCAACTATTTAAATGAGGATTATTGATATT 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
```

Squence 3, Application US/09469522 attach No. US20020151461Al GENERAL INFORMATION:

38-09-48-3-22-4 7 Sequence 37 Ap

```
55 ATGTCGTICACITITACIGAGCIACAGAAAAACAIAGAAAICAGIGICCATAAATTCTTT 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   115 AACITACIAAAAGAAAIIGAIACCAGIACCAAAGIIGAIAAIGCIATGICAAGACTGIIG
174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           175 AAGAACPAPGAFGTATFFGTAFFFGCACTFFCAGGAAAFFFGGAAAGGACATGFGAACFFAFFA 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127 AAGAAGTATGAATGIATTGITGGAGTTTGGAGAAAIIGGAAAAGAAGAAGITAIA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     235 TATITGAGAGAAGGGASTAGIGGAIALGIAGIGAAAIAAAIICTSGAITSSISGIAAAA 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               355 GUGATUTO ATTUCAGUTAAPIGOTATGUGTGGTTGAGTATTUTATTAAAGTGTGAGTGGG 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7 ATGITGITTGACTTTTACTGAGGTACAGAAAACATAGAAATCAGTGTCCATAAATTCTTT 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      247 GTITCTIGGAICACATITITATIAGCIAAAGGGGAAGIATITACAAAIGGAAGAICTG
                                                                                                 TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 10, Length 3218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.0%; Pred. No. 0;
Matches 3212; Conservative 0, Mismatches
                                                                                                                                                                                                       ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER 119, 73, 469, 522
                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC COmpatible opeRATING SYSTEM: PS-F38, MS-D0S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEIOR APPLICATION DATA:
APPLICATION NUMBER: 09/026,459
FILINS DATE: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                 Benedict, William F.
Ebou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22 Dec 1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
TELEPHONE: $12,418-3000
                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 3218 base pairs
TYPE: nucleic acid
                                                                                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                               STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FLEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO. 3. SEQUENCE CHARACTERISTICS:
                                                                                                                                                                             CORRESPONDENCE ADDRESS:
APPLICANT: Xu, Hong-Ji
Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ropology: linear
                                                                                                                                                                                                                                                                                                     COUNTRY: USA
21F: 77210 4433
                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
                                                                                                                                                                                                                                                         CITY: Houston
                                                                                                                                                                                                                                                                                SIAIE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
```

ö

5 5	415	AUGUGTZAAAGAACCATATAAAACAGTGITATACCATTAAUGUTCAGGTGGAACA 424 TITTITITITITITITITITITITITITITITITITIT	
5 4	475		
ð £	5.45.	59	
等 畫	5.95	TECAAAATIIIATAGGIIIIATGAATGGGGGGGTGTAAAAAGAAAG	
3 2 3 2	555	GINGTEGAAAATCTTTCTAAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGAT 714 	
5 ±	715		
5 €	775		
5 =	787		
5 Ê	895 847	95	
5 £	956		
5 \$	796	GCT FEDSIACEMONTIGET GENERAL TOGAL CACAGE GATACAAACH GGAGFIEG GTTG 1074 FELLELLELLE DELLE LELLE LELLE HELLE HELLE HELLE LELLE HELLE HELLE HELLE LELLE GGET GGAAAL GGAA CACAGAAACH GGAAACH GAAACH GGAAACH GAAACH GAAACH GAAACH GGAAACH GAAACH GA	
5 3	1075 1027	TATTACCAGTAATGGAAPCCATGCTTAAATCAGAAGGAACGATTATCCATTCAAAAT 1134 HILLIHHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	
5 E	1145 1087	TETAGGAACTICTGAATGAGAGACATTITICAFATGTCTTTAFTGGGGGGGGGCTCTTGAG 1194 TITAGGAACTICTGAATGAGAACATTITICATATGTCTTTATTGGGGGGGGGG	
5 3	11195	12	
5 3	1255	ITTCCCATGGATICTGAAIGTGCTTAAITIAAAAGCCTTTGATTTTTACAAAGTGATC	
5 3	1415		
5 <del>2</del>	1475		
有量	1445	1 - 1	
£5	1495	AGATATOTATOTTICTOCTOTAACATOT 155	

```
1447 AATCTTCCTCCCAGAATAATCACACTGCAGTAGATATGTATCTTTCTCTGTAAGATCT 1506
                                    1615 ACCICAGCCTTCCAGACCCAGAGCCALIGAAATGTACTICTCTTTCACTGTLITIALAAA 1674
                                                                                                1735 CACCCAGAATTAGAACATATCATCTGGACCCTTTTCCAGGACACCCTGCAGAATGAGTAT 1794
                                                                                                                                                                                                            1687 CACCCAGAATTAGAACATATCATGGAPCCTTLTCCAGPACACTCTGTAGAATGAGTAT 1746
                                                                                                                                                                                                                                   1795 GAACTCATGAGAGAGAGGCATTTGGACCAAATTATGATGTGTTCGATGTALGAGATATGC 1854
                                                                                                                                                                                                                                                1855 AAAGTGAAGAATATAGACCTTAAATTCAAAATCATTGTAAGAGATATAGAAGGATCTTGCT 1914
                                                                                                                                                                                                                                                                                                  2095 CCTAGITGACCCTTACGGATTCCTGGAGGGAACATCTATATTTCACCCTGAAGAGTCCA 2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2155 TATAAAATTICAGAAGGICTGCCAACACAAAAAAATGACTCCAAGATCAAGATCTIA 2214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2107 TATAAAATTICAGAAGGICIGGCAACACCAACAAAAAGGCICCAAGAAGAICAAGAAGAITTA 2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2227 INTRACASOGAMMETGLOFFGAAAAGAASLOFFRAAGGAAGGAAGGLOFFAAAMGAMG 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2335 AAAAAACTACGCTTTGATATTGAAGGATCAGATGAAGTAGAAGTAAAGTACGCCCA 2394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2287 AAAAAACTACGCTTTGATATTGAAGGATCAGATGAAGGAGAAGTAAAGTAAACATCTCCCA 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1915 CATGCTGTTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAGGGGGGTATGATT 1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2455 AAGGAGAAAATGAATGATAGGATGGATACCTCAAAGAAAAGABAAATGAGAGATCTCAG 2514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2467 GACCTEGGTGGACACTGTGTACACCTCTGGATTGATGTCTCTCACACATGTGACTGTAT 2526
                                                                                                                                                                                                                                                                                                                                                                                    1975 AFAGTALLGTATAACT COGTCLLCATGCAGAGAAAGAAAAAATALLLIGCAGLATOOT
90
                                                                                                                                                                                                                                                           qq,
                                                                                    ò
                                                                                                          qq
                                                                                                                                    ें
                                                                                                                                                      2
                                                                                                                                                                                    ô
                                                                                                                                                                                                            9
                                                                                                                                                                                                                                    ć
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                        30
                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ें
```

```
2875 GITIGGTGTTTTTAATTTATATGIATATTTTTTTTAATTTTAACATGAACACCCTT 2934
                                                2635 AAALGIGCAGATGCTTTGGGTGATTTGCTAAGCCAGTTGAAATGTTAGTGATTGTT 2694
                                                                                                                                                                                                                                                          2755 FILCCICLICCAAAGTAAAATTGCTGCTTTTATGGATAGTAAGAATGGGCCTAGAGTGG 2814
                                                                                                                                                                                                                                                                                                             2707 IIICCICCICCAAAGIAAAAIIGCFGFGCFFFAFGGATAGTAAGAAFGGCCCFAGAAGTGG
                                                                                                                                                                                                                                                                                                                                                                                        2827 STITICCICTICITITALIAATTIALAIGITATATTITITAATTIAACATGAACACCCTT 2886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2935 AGAAAA1G1G1CC1A1CTACCTACCTACCAAATGCAATTTGATTGACTGCCCATTCACCAAAAT 2994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2995 TATECHGAACTCTFCTCCAAAAATGGATATTATTAGAAATTAGAAAAAAAATTACHAATTFF 3054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        252? ANUTIOCOAGGITOTGITATGCOCACATTAATAICITCAGGCITITITGIGGATAIA 2586
                                                                                                                                                      2695 ATITATAGAAAATGTTGTGTGTAAATGTGGGATTTAAAAAGTTGTAGAAAGTTG 2754
                                                                                                                                                                                 2517 ATTTATATARGAFTSAAAALCTTGTGTAAARSQTGCGGATTTAAAAAGTTGFAGGAGATTG 27Q5
                                                                                                                                                                                                                                                                                                                                                           2815 BASHSCHSAFAACCCAGGCGTGTGACTTTGCCTTCTTTGTAGCATATAGGTGAT 2874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1115 ITTIGCTTITTAATTAAAAGCTGGAAGCAAAGTATAACGATATGATACTATGATACT 3174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          THE A INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                     SHETWARF: Pateutin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4235 ACTIAISTITIAAAIGAGGATIAIIGAIAGI 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4187 ACTIATOTITIAAATGAGGATTATTGATAGT 3218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     114 TO 1469, F22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IHM PC COMPATIBLE OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 85 Application US/09469522
Reference 85 Application US/09469522
Editor No. US2G02015146141
SINDRAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROJETINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "RRENT APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 51 'RRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME OF THE READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LS.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIAIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
                                                                                                                                                                                                                                                            Š
```

```
280 GPATTGGTGGTAMARGTTGTTGGATTANTTTTTATTASTAMASGGAAGTATTACAA 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              127 GCATTGGTGTTAAAAGTTTGTTGCATCACATTTTTATTAGCTAAAGGGGAAGTATTAGAA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    367 GAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAG 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     760 ATAGAMAGTITITGAAACACAGAACACGAAAAAGTAACCTIGA IGAAGAGGTGAAL 819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 ATGTCAAGACTGTTGAAGAAGTATGATGTTTGCACCTCTTCAGCAAATTGGAAAGG 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  520 GAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATALAGALGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              640 TCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGATACGAAGAAATTTATCTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    400 AAACTCTCACCFCCCA1GLIGCICAAAGAACCATATAAAACAGCFGTFAFAQGTCATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 700 AATAAAGATCTAGATGCAAGATTAFFTTTGGATCATGATAAAACTCTFCAGATGALTCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              340 ATGGAAGAFGATCTGCTGATTTCATTTCAGTTAATGCTATGCCTTGACTTGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 4113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                    DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                  REGISTRATION NUMBER: 41,071
REFERENCE, TOCCHET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                    95.1%; Score 3107; I
100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                   LOCATION: 7.,2349
SEQUENCE DESCRIPTION: SEQ ID NO: 36:
                                                 APPLICATION NUMBER: 09/026,459
FILING DATE: 22-Dec-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                       THEERCOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                         LENGTH: 3113 base pairs
                                                                                                                                                                         512/418-3000
                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                         TELEPHONE: 512/418-30C
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 36:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                               STRANDEDNESS: single
                                                                                                                                                                                                                                                               TYPE: nucleic acid
                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 3107; Conservative
                                                                                                                                                                                                                                                                                                                                CDS
                                                                   FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                NAME/KEY:
                                                                                                                                                                                                                                                                                                                FEATURE
                                                                                                                                                                                                                                                                                                                                                                                  US-09-469-522-36
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qa
•••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ÇΣ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ξ<u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δŌ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ω
Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
```

		<i>5</i>	or.	5 C	an .o	5 G	an wa	an so	o	<b>.</b> .	ور مو در مو	5 w	عب م <i>و</i>	s á	o	J &	5.
726 939 706	- Jr 00	105	111° 966	117	1239 1086	129	1359 1206	1419	147	1539	159	1659 1506	1719 1566	177	1830	1899 1746	195
7 GTAALFOCTGCACACACTCTCAGTTTTTTTTTTTTTTTTTTTTTTT		U GAGAAATHOFTAAAOFTOFOGGAGOOTTOTOTOGAAATTGGATGGAGGATAGAAA TELELEHTITTETTITTTTTTTTTTTTTTTTTTTTTTTTT	0 CTTOGASTICGCTIGIALIAC GASTAALGGAALCCATGCTTAAALCAGAAGAAGGA 1111111111111111111111111111	0 TIATICALICAAAATITIAGCAAGTICUGAAGGACAGTITITICALAIGICTITATIG 	U OPGIOCOPTETE AND HOLD AND HOLD AND AGAGAAGE ACAGAATETT OF THE TELLET TO A CAGAGAAGE ACAGA TO AGA TO	TCTGGAACAGATTTGTCTTT 		D. AAACATTEGGAACGGGAACATCGAATCATGGAACCCCTTGGATGCTCTCGAGATTCA     T. ELLELLELLELLELLELLELLELLELLELLELLELLELL	20. CCTITATITGATCTTATTAACAATCAAAGACGGGGGGGGGG	0. PCTOCHTGLICGICTT HANGETICGLICG AGAINANTCACACHOCAGAGAGATANGTATICTTT THE THE THE THE THE THE THE THE THE		0. OPNOROROWANTO MEDITECT CONTROCATION OF TRANSCOATION OF THE STATE OF	D PACTOLITIATAAAAAGIGFALGGGCIAGCCIACCCGGCTAAATACAGTTTGTGAA 	U POPTHETATETA ORGANIZATORA NA TARA ANTA ANTOTOGO ANTOTOGO GORGANO ANTA TELETATETA ANTOTOGO GORGANO ANTA ANTA ANTA ANTA ANTA ANTA ANTA A	BO CTOCAGAA FGAGTAFGAACTCATGAGGACAGCATTTGGACCAAATTATGATGTGTTCC FILLELLELLELLELLELLELLELLELLELLELLELLELLE	a ~	0 TAL'AROSA I'CTTO'T TOTTO'T GET CAGAGACATT CAAACGI'CTT'T GAT CAAAGAAGAG TITTITTITTITTITTITTITTITTITTITTITTITTIT
6.67 880 7.47	940	1000	1060	1120	1180	1240	1300	1360	1420	1480	1540	1600	1560	1567	1780	1840	0061
<u> </u>	- 박 숙	<u> </u>	÷ 4	축 · 글	≥ <u>-</u> 2	÷ 3	an a	<u>ځ</u> ۽	5 G	축 출	<u> </u>	\$ 8	ξ <u>ξ</u>	<u> </u>	<u>&gt;</u> ∓	5 <u>3</u>	7.7

```
1807 GAGTATGATTGTATTATAGTATTGTATAGTCGGTGTTGATGCAGAGAUTGAAAAGAAAT 1866
                                                                                            2080 AGCCCTTACAAGTITCCTAGTICACCCTTACGGATICCTGGAGGGAGAAAATCTATATTTCA 2139
                                                                                                                                                                                        1927 ACCCCTTACAAGTIICCIAGTICACCCTIACGGATICCTGGAGGGAATALCIALATTICA 1986
                                                                                                                                                                                                                       2140 CCCCTGAAGACCCATATAAAATITCAGAAGGICLGCCAACAACAAAAATGACTCCA 2159
                                                                                                                                                                                                                                        2200 AGAYCAAGAATEFLAGTATGAATTGGTGAATCATTCGGGACTTFTGAGAATTFCTAGAAA 2259
                                                                                                                                                                                                                                                                                                    2320 CCTCCTAAAACAATGAAAAAACTACGCTTTGATATGAAGGATCAGATGAAGCAGATGGA 2379
                                                                                                                                                                                                                                                                                                                                                                                                                                             2167 CCTCCTAAACCAATGAAAAAACTAGGGTTTGATATTGAAGGATGAGATGAAGCAGATGAA 2226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2380 AGTAAACATCTCCCAGCAGAGAGTOCAAATLICAGCAGAAACTGGGAGAAALGACLLOLACT 2439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2227 AGTANACATCTCCCAGGAGAGTCCAAATTTCAGCAGAAATGGCAGAAATGACTTCTACT 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2440 CGAACACGAATGCAAAAAGCAGAAAA1GAATGAIAGAATGGATACTTCAAACAAGAAGGAAGG 2459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2500 AAAIGAGGAICICAGGACCIIGGIGGACACIGIGIACACHCHGACHCATTGACHCTCA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2347 AAAIGAGGAICICAGGACCIIGGIGGACACIGIGIACACIICIGGAAIICATIGICICICA 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2560 CAGATGIGACTGIALAACTTIGGCAGGTTGTGIILAIGGGGAGALTIAALAIGIGAGGT 2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2407 CAGATGTGACTGTATAACTTTCCCAGGTTCTGTTTATGGCCACATTTAATATCTTCAGCT 2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2620 CTITITGEGOATALAAAAIGIGCAGAIGCAAIIGHIGGGGGAHGAIIGCHAAGCCACTIGAA 2679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2680 ATGTTAGTGATTGTTATATAGAGATTGAAAA EULGIAAALOUGOOATTTAAAA 2739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2740 ACTIVENACEACATTETTTCCTCTTCCAAAGTAAAATTETTGTCTTTTATGTATAGTAAGA 2799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2860 AIGGCCCTAGAGIGGAAICCIGAIAANSCAAGAGIGIN ISACIIIGN IIIIG 2859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2707 TAGCATATAGGTGATGTTTGCTCTTTTTATTAATTTATATGTATATTTTAATTT 2766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2980 CCCATTCACCAAAATTATCCTGAAACTCTTGCAAAAATGGATATTATTAGAAATTAGAA 3039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1747 TACAAGGAPCTTCCTCAFGCTGTTCAGGAGACTTCAAAAGGTGTTTTGAAGAAAGAAGAG 1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                   q
                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                           qq
                                                                                           õ
                                                                                                                                                          ò
                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             _{\rm OY}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
```

```
8040 AAAAATTACTAATTTTACACATTAGATTTTACTATTTACTATGGAATGTGATATACTGTGT 3099
                          2947 GCTGTTTATAAAAITTTGCTTTTAATTAAATAAAAGCTGGAAGCAAAGTATAAACAAA 3006
                                                                                                                                                                                    3160 TGATACTATCATACTACTGAAACAGATTTCATACCTCAGAATGTAAAAGAACTTGAT 3219
                                                                                                                                                                                                            410. GCTTGTTTATAAAATTTTGCTTTTAATTAAATAAAAGCTGGAAGCAAAGTATAACCAIA 3159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ITTLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92.0%; Score 3006; DB 10; Length 3347;
                                                                                                                                                                                                                                                                                                  3067 JAHTHELITTHELITTHEN HENDER TRANSPORTER TRANSPORTER 2113
                                                                                                                                                                                                                                                                             IATITICATICATICANITANGITITANANGGGGATTANTGATAGT 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Pelease #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSE: Arnold, White & Durkee
STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/1000KET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 0;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTC 109 1469, F22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: 1BM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE DESCRIPTION, SEG IB NO. 42:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILLING DATE: 22-Dec-1999
CLASSIFICATION: GRENGWEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Z1P: 77210-443
COMPUTER READABLE FOREN
MEDLUM TYPE: FLOREY COMPATIE
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 42, Application 98/99469522
Patent No. 9820020151461A1
GENERAL INFERMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 512/418-3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGIH: 3347 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AIT RMEYZASENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 42: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .2584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shirxue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InPoLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SPONFINCES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAMEZKEY CDS
LOCATION: 7..2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CllY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches Reds: Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Н1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-09-469-522-42
                                                                                                                                                                                                                                                                                                                                                                                                               US 49-469-522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STOTY Match
Bost Local S
                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
```

261 ATCTACTGAAATTAAAATTGTGGATTGGTGGTAAAAGTTTGTTGGATGACATTTTATTAGG 320

```
1341 CTTGACAAGAGAAATGATAAAAACAITTAGAAGGATGTGAAGATGAATGATGGAATGGT 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1802 TTPCTALLLAACAACTGGAGAGGGAAAIGGAAAAGAAAGTATAGTGAAAAGGGLGAAGGA 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1221 MAÇARÇIRÇAZAARÇIRSALTICINSSAACACARTINCI ÇIRINING CANSGATIVINGAARCISCI 1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1281 TAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTTATGAAGGGAGAAGGAA 1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1362 FAMITITAAAAGCCTTTGAFIITTACAAAGTGAFGGAAAGTFTTATGAAAGFAGAAGGAA 1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1362 PACAPOTOAGAAFCTIGATICTOGAACAGATIGICTITOCCATGGATTCTGAATGTGCT 1361
381 TGTCCTTGACTATTTATTAAACTCTCACCTCCCATGTTGCTCAAAGAACCATATAAAAC 440
                                                                   321 "MAAAGGGGAAGTATTACAAATGGAAGATGATGTGGTGATTTCATTTCAGTTAATGCTATS 380
                                                                                                                                                                                       441 AGCTGTTATACCCATTAATGGTTCACCTCGAACACCAGGCGAGGTCAGAACAGGAJGS 500
                                                                                                                                                                                                                                                                                                                                                                                                      582 ACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACA 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                     561 TGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATATGAA 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 621 TICICITGGACITGTAACAICIAAIGGACITCCAGAGGTIGAAAAICITICIAAACGAIA 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     741 AACTCTTCAGACTGATLC1A1A5ACAGTITTGAAACAGAGAAGACACCACGAAAAAGTAA 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  801 CCTTGATGAAGAGGTGAATGTAATTCCTCCACACTCCCAGTTAGGACTGTTATGAACAU 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             861 TATCCAACAATTAATGATGATTTTAAATTCAGCAAGTGATCAAACCTTCAGAAATGTGAT 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                522 AGCTGTTATACCATTAATGGTTGGAACACCAGGGGAGGTCAGAACAGAAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               981 TATAGGATACATCTTTAAAGAGAAATTTGCTAAAGGTGTGGGGACAGGGTTGTGGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1161 TITICATATGICTITATIGGGGIGGGCTCTIGASGIIGIAAIGGGCACATATAGCAGAAG
                                                                                                                                                                                                                                                                                                                                                      501 ACCCATACCAAAACAACTAGAAAATCATACAAGAATTAFTGAAGTTGTGTGTGTAAAGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             681 CGAAGAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTTGGATGATGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1041 TGGATGAGGGATAGAAGTTGGAGTTGGGTTGTATTAGGGAGTAATGGAATGGATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ₹¢;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ę,
```

```
2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1881 CAAAATCATTGFAACAAGATACAAGGAFCFTCCTCAFGCFFFFCAGGAGACATTCAAAGG 1940V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2121 AGGGAACATCTATATTTCACCCCTGAAGAGTCCATATAAAAFTTCAGAAGGTCTGCCAAC 2180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2181 ACCAACAAAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAATCATTGGGGAC 2240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23.2 TTTT NSANSTECEAGANAATANATCASATSTEATANAANAN NESTSTEEL HILLIHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.501 AAG 1921 GAAGGAAGGAGGTGGTAAAGGAGTGAAAAAAGTAGGGTTTGATGTATTGAAGG 23.60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      242) GGGAGAATGACTICTACTGGAACACGAATGCAAAAGGAGAAAATGAATGATGGA 2480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1422 CTTGACAAGAGAATGAFAAAACATTTAGAAGGATGTGAACATCGAATCATGGAATCCCT 1481
                                                                    1461 ACCANCIGATOACCTIGAATCTGCTTGTCTTTAATCTTCCTCTCCCAGAATAATCACAC 1520
                                                                                                                     1521 FOAGGGGGATALGTAFGTFFGTGGGGGFGTCGGAAGAAAAAGGTFGAAGTAGGGG 1580
                                                                                                                                                                                          1581 TOTAAATTOTAAATOPAAAGAAGAAGAAGCAAGPICAGPCIITGGAGAGGGAAAGG 1640
                                                                                                                                                                                                                                                                1641 ATTGAAATCTACCTCTTTTCACTGTTTTATAAAAAGTGTAFCGGCTAGCCTATCTCCG 1700
                                                                                                                                                                                                                                                                                                                              17.22 ALIGAAALGTACCPCPCTTTCACTGTTTTATAAAAAGTGTATCGCCPACCCPATCTCCG 1781
                                                                                                                                                                                                                                                                                                                                                                                  1701 GMAAATAGAGITTIGIRGAAGGGGTIGIIGIIGIIGIIGAGGAGGAGAATTAGAAGATATGAIGIIG 1760
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1761 GACCETELECCAGCACACACOLOCAGAATGAGETATGAACTCATGAGACAGGGATTFFGGA 1820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1821 CCAAATTATGATGTGTTCCATGTATGGCATATGCAAAGTGAAGATATAGACGTTAAATT 1880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1962 CAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCTGTTCAGGAGAGACATTCAAACG 2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001 GCAGAGACTGAAAACAAATATTTGCAGTATGCTTCGAGGGGCCCCCTACCTTGTCACC 2060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2082 GCAGAGACTGAAAACAAATATTTTGCAGTATCCTTCCACCAGGCCCCTACCTTGTCACC 2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2061 AAFAGGTGAGATTGGTGGAAGGGGTTAGAAGTTTGGTRAGTFGAGGGTTAGGGATFGCFGG 2120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2262 ACCAACAAAA EGACTCCAAGA EGAGAATCTTAGTATCAATTGGTGAATCATTGGGGAC 2321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2022 TGLEFFGALGAAAGAAGAGGAGFAFGAFFGFATFAFAGFFCFAFAACFFGGFGFGFGFFCAFF 2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1941 TOTEFFOATCAAAGAAGAGGAGTATGATTCTATAGTATTCTATAACTGGGTCTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2241 ITCLGAGAAGTIGGAGAAAATAAATGAGATGGTATGTAAGAAGGGGAGGGTGTGCTGAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2361 ATCAGATGAAGCAGATGGAAGTAAACATGTGGGAGGAGAGTGGGAAATTTGAGGAGAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                 -2
                                                                                                                                                                         5
                                                                                                                                                                                                 Ξ
                                                                                                                                                                                                                                    50
                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                        â
                                                                                                                                                                                                                                                                                                                                                                                7.0
                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ==
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
```

```
3101
                  2562 TACCTCAAACAAGAAGAAGAAGAGAGATCTCAAGAACTTGGGTGGACACTGTGTAACT 2621
                                                                                                                                                                                                                                                    2742 GATTCCTAAGCCACTTGAAATGTTAGTCATTGTTATTATACAAGATGAAAATTTTTT
                                                                                                                                                                                                                                                                                                                                                2802 TANATCCEGCCATTIANANAGITGTAGCAGATTGTTCCTTCCTACCAAAGTAAAATTGCTG 2861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2901 ATGTATATTTTTAATTTAACATGAACACCCTTAGAAAATGTGTCCTATCTTACAA 2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2982 ATGTATATTTTTAATTTAAGATGAACACGCTTAGAAAATGTGTGCCTATCTTGCA 3041
                                                                                              2862 TGCTTTATGGATASTAAGGCCCTAGAGGGGGGGGCCCGAGATGCCAGGCCGAGGCTGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2781 TOCTTTATIGGATACTAACAATGGCCCTAGAGTGGGAGTCCTGATAACCCAGGCCTGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2841 ACTACTTTGCCTTCTTTTGTAGCATATAGGTGATGTTTGCTCTTGTTTTTAFTAATTTAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAGCAAAGTATAACCATATGATACTATCATACTTACTGAAACAGATTTTCATACCTCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3222 GAAGCAAAGTATAACCATATGATACTATCATACTACTGAAACAGATTTCATAGGTCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3201 TGTAAAAGAACTTAGTGATTATTTTCTTGATCGAAGTTATGTTTTTAAATGAGGATTATT
2481 TACCTCAAACAAGGAAGAGAATGAGGATCTCAGGACCTTGGTGGACACTGTGTACACCT
                                                                         2541 CIGGATICATIGICICICACACAGATGIGACTGIATAACTTICCCAGGITCTGITATGGC
                                                                                                                                                                                            2682 ACATITAATATCITCAGCICITITIGIGGATATAAAATGIGCAGATGCAATIGITTGGG
                                                                                                                                                                                                                                 2661 GATTOCTAAGCCACTIGAAATGITAGTCATIGITATITATATAAAAGATIGAAAAFCTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3021 ATATTATTAGAAATTAGAAAAAATTAGTAATTTTAGAGATTAGATTTATTTAGTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2961 ANTICCANTITICATTICACTICCCATTICACCAAAATTATICCTICAACTICTICTICLAAAAATIGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 48, Application 05/094095_2
Patent No. 0820020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPOTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SHOURNCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3261 GATAGT 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3342 GATAGT 3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                            q
                                                                                                                                                     Š
                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

STREET, F.O. BOX 4433

```
7.0. ACTGAGATACAGAAAAACATAGAAATCAGTGACATAAATTCAACTTTACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14. ATTGATACCACTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTA 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              198 ITGITTGGACTCTTCAGGAAAITGGAAAGGACAIGTGAACTIAIAIATTGGACAGAACC 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   250 AGCAGLICGATATCIACTGAAATAATTCIGCATTGGGGCTAAAAGTTTCTTGGATCACA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ERB AGGAGTTCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAAGTTTCTTGGATCACA 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               578 THITTALIAGCIAAAGGGGAAGTATTACAAATGGAAGATGATCTGGTGATTTCATTTCAG 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ** TIAAIGCIAIGICICOTICACIAITIIAITAAACICICACCECCCAIGIIGCTCAAAGAA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.3/1 CCATATAAAACAGGTGTTATACCCATTAATGGTTCACCTCGAAACACCCAGGCGAGGTCAG 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             440 AACAGGAGIGCAGGGAIAGCAAAACAACTAGAAAAIGAIACAAGAATTATTGAAGTTCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4, Indels 171, Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10 CIGIGGGGAATCIGIATETIATIGCACCAGITGACCTAGATGAGATGTCGTTCACTTTT 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      h
88.8%; Score 2898-6; DH 10; Length 3383;
Similarity 94.6%; Prod No 0;
                                                                                                                                                                                  SOFTWARF Patentin Release #1 0, Version #1 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      O, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DUCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                         The but the said
                                                                                                                                    COMPUTER: IHM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SECUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09,7026,459
                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER 41,071
                                                                                                                                                                                                                                                                              -Unknown>
                                                                                                                                                                                                                                                   FILLING DATE: 22-Dec-1999
                                                                                                                 MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: $12/418-3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGIH: 3483 base pairs
                                                                                                                                                                                                                                                                                                                                            FILING DATE: «Unknown»
ATTORNEY, AUTRIT INFORMATION
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NOT 48: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                     CORRENT APPLICATION DATA: APPLICATION NUMBER (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                      COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                            77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY COS
CilY: Houston
                                           COUNTRY: IISA
                        ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 75 09 469 522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matchas 3082,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10,000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
```

qu ;	734		733
λō	550	TGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTATTCAAAAAATTTTATA	509
qa	734		734
ΟŽ	610	CCTTTATGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTT	699
ű	734	CGAATTCTCTTGGGACTTGTAACATCTAATGGACTTCCAGAGGTGAAAATCTT	786
ā	r r la	TOTARACATATTARATTTATTTARAATAAATAAATAAATTAGA NOORAGATTATITITG	477
qu	787	TCTAAACGATACGAAGAATTTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTG	946
ģ	730	GALCATGATAAAACICTTCAGACTGATCTATAGACAGTITTGAAACAGAAGAACAGA	789
늄	847	GATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAAGACAGAGAAGAAGCA	906
ŏŏ	740	GGAAAAAGIIAAQCITIGATGAAGAGGI GAATGITAATTCCTCCACACACACTCCAGT TAGGACT	80 24 20
主	0.00	CSAAAAASTAACTISAISAASASASTSAATETAATICCICCACACACTCCASATIAGGA.T	966
<b>6</b> 5	850	856 GITALGAACACTALCCAACAALTAATGALGALITIAAATTCAGGAGGALCAACCTICA 909	506
<b>a</b>	7967	GTFATGAAZACTATECAAZAATTAATGATGATTTIAAATTZAGGAAGTGATGAGGGTGA	1026
ŝ.	910	GAAAATCTGATTTCCTATTTAACAACTGCACAGTGAATCCAAAAGAAAG	696
Q Q	1027	GAAAATCTGATTTCCTATTTAACAACTGCACAGTGAATCCAAAAGAAAG	1086
$\Omega Y$	646		1029
윤	1087	AGAGTGAAGGATATAGGATACATCTTTAAAGAAAATTTGCTAAAGGTGTGGGGGGGG	1146
Ś	1030	FGTGTGGAAATESGATGATAGAAAACTIGGAGTICGCTTGTATACGAGTAATG	1089
ם	1147	TGTGTGGGAAATTGGATGAGAGGGATAGAAACTTGGAGTTGGCTTGTATTACGGAATAATG	1206
δý	1090	GAATCCATGCTTAAATCAGAAGAAGAAGGATTATGCATTCAAAATTTTAGCAAACTTCTG	1149
qq	1207	GAATOPATGOTTAAATGAGAAGAAGGATTATOGATTGAAAATTTTAGGAAATTGG	1266
οу	1150	AATGACAACATTTTCATATGTCTTTATTGGCGTGTGGGGGTTGTAATGGCCACA	1209
q	1267	AATGACATTTTTCATATGTCTTTTATTGGCGTGCGTCTTGGAGGTTGTAATGGCCACA	1 426
ò	1210	TATAGCAGAAGTACATCTCAGAAATCTTGATTCTGGGAACAGATTTGTTTCCTTTCCTATGGATT	1264
ψn	1327	TATAGCAGAAGTACATCTGAGAATCTTGATCTGGAACAGATTTGTCTTTGCCATGCATT	1386
5.	1270	CTSAAFGTSCTTAATTTAAAAGCCTTTSATTTTTACAAAGTGATCSAAAGTTTTATCAAA	1329
ПÞ	1387	CTGANTGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTTATCAAA	1446
δy	1330	GCACAAGCCAACTFGACAAGAGATAAAACATTTTAGAACGATGTGAACATCGAATG	1389
qq	1447	GTAGAGGTAGTTGGAGAGAGAGAATGATAAAAGATTAGAAGGATGTGAAGAA	1506
Ċλ	1390	AIGGAICCCIIGCAIGGCICICAGAIICACCIIIAII1GAICIIAIIAAACAAICAAAG	1449
đũ	1507	A FGGAAT C CCTTG CATGGCT CT CAGATT CACCTTTATT GATCTTATT AAACAAT CAAAG	1566
Ś	1450	GACCGAGAAAGACCGAACCGACCTGAATCTGCTGGTGGCCCTAATCTTCCTCTCCCG	1509
qu	1567	GACGASARGACTRATCACTTGASTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTC	1626
ΟY	1510	AATAATCACACTGCAGCAGATATGTATCTTTCCTCGTAAGATCTCCCAAGAAAAGGT	1569
십	1627	ANTANCACACIGEASCASATATGIATGIITGIGCIGIAASATCIDCAAASAAAAAAST	16.86
0,	1570	TCAACINGGCGIGIAAAITCIACIGCAAATGCAGAGAGACAAAAGAACCICAGCCITCCAG	1629
qq	1687	TCAACTAGGGTGTAAATTGTAGTGGAAATGGAGAGACACAAGGAAGG	1746

689 806 749 865, 809 926 869	2 8 8 6 7 8 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	44 66 69 69 88	28 8 8 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	00 00 00 00 00 00 00 00 00 00 00 00 00	88 80 84 90 80 80 80 80 80 80 80 80 80 80 80 80 80
1 1 1 1 1	19 19 20 20 19	21 21 21 21 21 21 21 21 21 21 21 21 21 2	22 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	24 25 25 25 25 26	25 26 27 27 28
ANY CAGAGO SALIGAAATCTAYOTCTCTTCACTGTTTTATAAAAAGGGTATCGGCTATAAAAAAGGGTATCGGCGCTAAAAAAAA	HILLIHILIHITH HILLIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIH	TOBSTCTTCATGCANAGATGAAAACAAATTTTGCAGTGCTTCCAGGCCCCCTTLLLLLLLLLL			
16.50 1747 16.50 1867 1750 1810	1927 1870 1987 1530	1390 2107 2050 2167 2110 2227	2170 2287 2230 2347 2290 2407	2450 2467 2410 2527 2470	25.40 26.47 25.90 27.07 26.50
5 8 5 2 5 2 5	1 8 3 8 3 8	3 4 3 4 3 4	3 2 3 3 3 3	3 f 5 f 5 f	6 4 6 4 6 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6

```
2770 TAAAATIGCEGIGCHIIAIGGATAGIAAGAAIGGCCTIAGAGAGIGGGAGICCTGAIAAACC 2829
                                                                                                                                                                                                                                                                          3010 TGCAAAAATGGATALLALIAGAAATTAGAAAAAALLAMTAMALHAMAMAMILAMTEL 3069
                                                                                                                                                                                                                                                                                                                                                                                                                                             3070 ATTITACIATIOGAATCTGATATACTGTGTGTGTTTTATAAAATTTTGTTTTAATTA 3129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3130 AATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATGATACTGAAACAGATTTC 3189
2710 AAAATCTTGTGTAAATCCTGCCAIIIAAAAAGHGHAGAAAHGHHGAAAAAAAAAAAA
                      2830 AGGCCTGTCTGACTHGGGTTGTTHGTAMATATAGGTGATGTHGGTGTDTHT 2889
                                                                                                                                                                                                          2947 AGGCCIGTCRACTACTIFFCCTFTFFFFFFACAIALAGGLCAFCTFGCTCTFGTFTF + 0005
                                                                                                                                                                                                                                                                                                                                     2950 TCTATCTTCCAAATGCAATTTGATTGACTGCCATTCACCAAAATLATCTGAACTCTG 3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3247 AATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACTACTGCTGAAAAAATTTC 3306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3190 ATACCTCAGAATGTAAAAGAACTTACTGATTATTTTTCTTCGAATTTA1GTTTTAAA 3249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3307 AJACCICAGAATGTAAAAGAACTTACTGATTATTTTCTTCALCCAACTTATGTTTAAA 3366
                                                                                                                                                                                                                                                  2890 IATTAATTTATATGTATATTTTTTTAATTTAACATGAAGAGGCTTAGAAAATGTGTGCTA
                                                                                                     TITLE OF INVENTION: MODIFIED RELINOHIAS COMA COMOR SELECTESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFIWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NOMBER: US/20/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Soul-SM/Soul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IHM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ? Sequence 46, Application US/09469522
; Patent No. US20020151461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ILING DATE: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: P.O. BOX 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERALING SYSTEM: PT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3250 TGAGGATTATTGATAGT 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3367 TGAGGATTATTGATAGT 3383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-469-522-46
                                         3
                                                                                 ò
                                                                                                                      qq
                                                                                                                                                                  ŝ
                                                                                                                                                                                                        \stackrel{\cap}{\alpha}
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                       Ω
<u>Ω</u>
                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>q</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ó
```

```
÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              190 ITGITIGGACTGITGAGGAAAIIGGAAAAGGACAIGIGAAGIIAIATATATGACACAAGG 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -GGTCGCTGTTATACCATTAATGGTTCACCTCGAACACCCAGGCGAGGTCAG 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  298 010100000AAFCFGTATCTFFATIGCAGCAGFFGACCFAGAFGAGAGATGFCGFFCACFFFFF 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTGAGGTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358 AUTGAGITACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTAAAAGAA 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1300 ATTIGATANGASTACPAAAGTTGATAATGCTATGTCAAGAGTGTTGAAGAAGTATGATGTA 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             418 ATTGATACCAGTACCAAAGTTGATAATGCTATGPAAGACTGTTGAAGGAAGTATGATGTA 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       250 AGGAGITGGAIAICIACIGAAAIAAAIICIGGAIIGGTGGIAAAAGITFCITGGAFGAG 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                314 T1111FALFAGGFAAAGGGGAAGFAFFAGAAAFGGAAGATGATCFGGFGAFFFFCAFFFGAG 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     370 TIAATGUTATGTGTGGTTGAGTATTTTATTAAAAGTGTGACGTGCGATGTTGCTCAAAGAA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 🖖 CONTATAAAACAGGTGTTATACCCAITAATGGTTCAOCTGGAACACCCAGGGGTCAG 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTAAAGAACATGAATGTAATATATAGATGAGGTGAAAAATGTITATTICAAAAATTTTATA 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61: COTITIATGAAITCICITGGACIIGIAACAICIAAIGGACIICCAGAGGIIGAAAAICII 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5.7 to 17 taaagaaa agaaa hitalotiaaaaataaagatotagatogagattatifitg 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.36 GATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAACACA 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4; Indels 177; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19 CTGTGGGGAATCTGTATCTTTATTGCAGCAGTTGACCTAGATGAGATGTGGTCACTTTT 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 TOTAAAOGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88.4%; Score 2886.6; DB 10; Length 3377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Prod. No. 0:
0; Mismatches
                                            REFERENCE/DockET NUMBER: UTXC:506
TELE: WANDRICHIN INCOMATION:
TELEPHONE: $12,418-3000
TELEPHAX: $12,474-757
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION, SEQ ID NO. 46.
                         REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                          LENGIH: 3377 base pairs
NAME: Hibler, David W.
                                                                                                                                                       INFORMATION FOR SECTIONO; 46: SECUENCE CHARACTERISTICS;
                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94.48:
                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hest Local Similarity 94.4
Matches 3076; Conservative
                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                    1-35-4.0GY:
                                                                                                                                                                                                                                                                                                                                                    NAME / REY
                                                                                                                                                                                                                                                                                                                                                                          LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 48 AGCAGITCGAI-
                                                                                                                                                                                                                                                                                                                                                                                                                                US 09 469 522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ė
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; <del>. .</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ã
```

```
1201 GAATCCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAALTTTAGCAAACTTCLG 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961 GITTATIGAACACTATICCAACAATTAATGATGATTTTAAATTTCAGCAAGTGATCAACCTTCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1030 TGTGTGGAATFFGGATGAGGATAGAAGTTGGAGTTGGCTTGTATTACGAGTAALG 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141 TOTGTGGAAALTGGATGAGAGGGATACAAACTTGGAGTTGGCTTGTATTACCCACTAALG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1090 GAATGCATGCITAAALCAGAAGAAGAACAIIATCCA1FCAAAATTITAGCAAACTTCTG 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1150 AATGAGAAFATTTTFFFCATATGTFTTTATTGGGGTGGTGCTGTTGAGGTTGGTAATGGGGAGA 1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1210 TATAGGAGAAGTAGATGTGAGAATGTTGAGAAGAAGAGTTTGTGTGTTTGTGAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321 TATAGCAGAAGTACATCTCAGAATCTTGAATTGTGGAACAGATTTGTGTGTTTGCCATGGALL 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1330 GCAGAAGGCAACTEGACAAGAAAATGAFAAAACATTTAGAACGATGTGAACAFCGAATT 1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1441 GCAGAAGGCAACTIGACAAGAAATGATAAAAACATTTAGAAGGAIGIGAAGAIGGAAIG 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1450 GACCGASAASACCAACISALCACTIGAATCTGCTTGTCCTCTAATCTTCCTCTCAG 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1630 ACCCAGAAGCCAIIGAAAICIACICICLILCACIGIILIAIAAAAAAGIGAACGGCIA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1810 AGGCATTTGGACCAAATTATGATGTGTTTCCAIGIATGGCAIATGGAAAGIGAAGAATAIA 1869
                             910 GAAAATCTGATTTCCTATTTTAACAACTGCACAGTGAATCCAAAAGGAAGTATACTGAAA 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1381 CTGAATGTGCTTAAATTTTAAAAGCCTTTGATTTTACAAAGTGATGGAAAGTTTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               790 CGAAAAAGTAACCTTGATGAAGAGGTGAATTGTTGTTGAGAGTGGAGTTGGAGTTAGGA
                                                                                                                                                                                                                                                                                                                                    970 AGAGTGAAGGATATAGGATACATGILIAAAGAGAAAIIIGGIAAAGGIGIGGGAAAGGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1561 GACCGAGAAGGAGCTGATCACCTTGAATCTGCTTGTGCTCTTATCTTGCTCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1801 GCCTATCTCCGGCIAAAIACACITIGIGAACGCCITCIGIGICIGAGCACCCAGAATTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1750 CATATCATCTGGAPCCTTTTCCAGCACACCTGCAGAATGAGTATGAACTCATGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1861 FATATGAPPPGACCOPTTTPGAGACACACAGAGAAGAATGAGTATGAACTGATAAGAAAA
                                                                                                              850 CITTATGAAGAGTATCGAAGAATTAATGATGATTTTAAATTGAGGAAGTGATGAAGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1510 AATAATCACACTGCAGATATGTAFCTFTGTGCTGTAAGAAGAAGAAAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                       ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

		· · · · · · · · · · · · · · · · · · ·				
TAAATTCAAAATCATTSTAACAGCATACAAGGATCTGGTGTGTGTGTGTGTGTGTGT	THATCHARD GAAAACAAATATTTTGAGTATGCTTCPACCAGGCCCCT 2049 THATTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	CGATTCCTGGGGGGAACATCTAATTTCAGCCGGAAGTGCATATAAAATTTCAGAA 2169 THILLIHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	240 234 246 240 252	CAGCAGAAACTGGCAGAAATGCTCTACTCGAACACGAATGCAAAAGCAGAAATCAAT 2469  CACTALLILILILILILILILILILILILILILILILILILIL	IGITTATGGCCAVATTAATATCITCAGCTCTTTTGTGGATATAAAATGTGCAGATGCA 2649 HILLIHILHHILHHILHHILHHILHHILHHILHHILHHI	TAAAATTGCTGTGCTTTATGTGTGAGAATGGCCTAGAGTGGGGGCTGGATAACCC 2829 [LILLHILLLILLILLILLILLILLILLILLILLILLILLI
GACCITAAATIC [HIHHHHHH] GACCHAAAHC ACATICAAACGE HIHHHHHH ACATICAAACGTC	HOGGICTICATOR HILLIHHHH EGGICHEALG ACTTGICACCA ACTTGICACCA ACCTGICACCA	CODATTOCTOBAGG FEBTILITITITE CODATTOCTOBAGGG COLCTOCCAACACA FEBTILITITITE COLCTOCCAACACCA TCATTOCGGAACATOT	GATA GATA GATA GATA	CAGCAGAACTGG CATLALATIO CATAGCAGACTGG CATAGCATGAT CATAGCATGGAT CATAGCATGGAT CATAGCATGGAT CATAGCATGGAT CATAGCATGGATGATGATGATGATGATGATGATGATGATGATGATG		TAAAAT [
0.y 1870 10b 1981 0.y 1930 10b 2041	97     1990       0b     2101       9y     2050       0b     2161       0b     2161	2110 2221 2170 2281 2280	<ul> <li>ab 2.441</li> <li>cy 2.290</li> <li>bb 2.401</li> <li>cy 2.850</li> <li>db 2.461</li> </ul>	0y     2410       0b     2521       0y     2470       0b     2581       0y     2530       0b     2530       0b     2530       0b     2540	0.99 25.900 1.05 27.01 0.97 26.50 1.05 27.10 1.05 28.21	<ul> <li>Ογ</li> <li>2770</li> <li>2781</li> <li>2830</li> <li>2941</li> <li>2941</li> <li>2940</li> <li>3001</li> <li>Ογ</li> <li>2830</li> <li>Ογ</li> <li>2840</li> <li>Ογ</li> <li>2850</li> </ul>

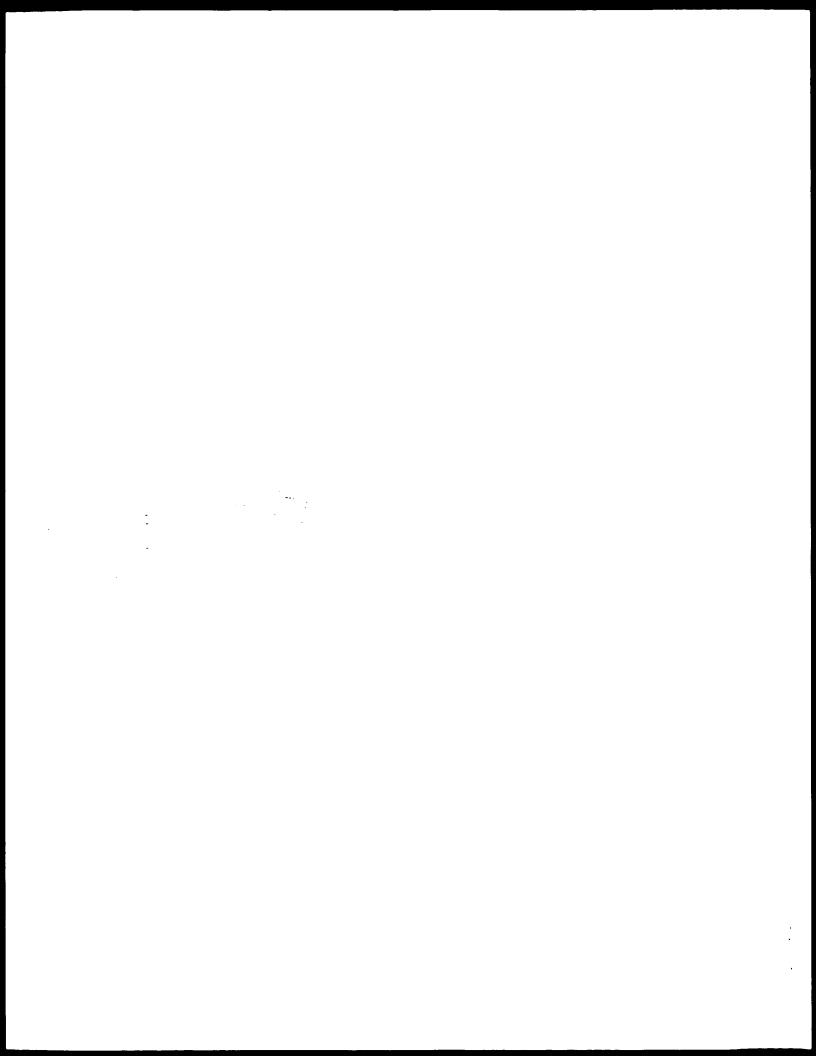
```
3121 IGCAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTACACATTAGATTTT 3180
                                                                                                                                  3070 ATTITACIATIGGAATCIGAIATACIGIGIGCITGITITATAAAATTITGCTITTAATTA 3129
                                                                                                                                                                                                               3130 AATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACTACTGAAACAGATTTC 3189
                                                                                                                                                                                                                                                                                        3190 APACCECAGAAFGFAAAAGAACTFACEGATTATTTGFFCGAACTFALGTFFFAAA 3249
                                                      Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM: ACTUOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Hibler, David W. REGISTRANION NUMBERS. 41, 071
REFERENCE/DOCKET NUMBER - UTXC:506
TELECOMMUNICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COPPESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: 7..2397
SEQUENCE DESCRIPTION: SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 09/026,459
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Xu, Hong-Ji
Hu, Shi-Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CONTRY: USA
ZIE: 7/ZIU-4433
COMPUTER READABLE FORM:
MEDIUM TYPE: FIOPPY disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 44, Application 95/09469522
Patent No. 0520020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 3161 base pairs
TYPE: nucleic acid
STEANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                    3250 TGAGGATTATTGATAGT 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                          3361 TGAGGATTATTGATAGT 3377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
LOCATION: 7..2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11S-04-464-575-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-469-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
                                                                                                                                                                                                                                                                                                           qq
•
                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                           ò
                                                                                           q
                                                                                                                                  ò
                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                  Пр
                                                                                                                                                                                                                                                                                          Ŏ.
```

0;																	
aps	481	541	601 496	661 556	721	781 676	841 736	901	961 856	1021 916	1081	1141	1201	1261	1321	1381 1276	1441
arch 86.6%; Score 2827.4; DB 10; Length 3161; Jal Similarity 99.6%; Pred. No. 0; 2834; Conservative 0; Mismatches 11; Indels 0; G	TCAAAGAGCATATAAAACAGCTGTTATACCCATTAATGGTTCACCTCGAACACCCAGGC 	GAGGTCAGAACAGGAGTGCACGGATAGCAAACAACTAGAAATGATACAGAATTATTG FEFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	AAGITOTOTGIAAAGAACATGAATGIAATAIAGAIGAGGGAAAAAAAGITITAITITOAAA 1.	ATTITATANCHTITATGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTG	AAAALTIICIAAACGALACGAAGAAATTTAICTTAAAAATAAGAICTAGATCTAGATT 	INITITISGATCATGATAAACTCITCAGACTGATTCTATAGACAGTTTTGAAACACAGA 	GANCACCACAGAAAAATAACCTIGATGAAAGGIGAATGIAATTCCTCCACACTCCAG CLELLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL	FTAGGACTGTTATGAACACTATCCAACAATTAATGATGATTGAATTTCAGCAAGTGATCTT-T-T-T-T-T-T-T-T-T-T-T-T-T-T-T-T-T-	ANCETERAGAAATCTGATTTCCTATTTTAACAACTGCACAGTGAATCCCAAAAGAAAG	TACTGAAAAAAACATATAGGATACATCTTTAAAGAAAATTGGTAAAGCTGTGGG 	GAPAGGETGTGTGGAAATTGGATCACAGGATAGAAACTTGGAGFTGGCTGTATTTAGC 	GAGTAATGGAATCCATGCTTAAATCAGAAGAACGATTATCCATTCAAAATTTTAGCA 	AACTICIGAAIGACAACATTTTCATATGICTTTATIGGCGTGCGCTCTTGAGGGTGGTAA	FGGCAPATATAGCAGAAGTACATCTCAGAATCTTGGATCTGGGAACAGATTTGTCTTTTGCTTTTTTTT	GATGGATTCTGAATGTGCTTAATTTAAAAGCCTTTGATTTTACAAGTGATCGAAAGTT  - - - - - - - - - - - - - - - - - -	ITATCAAAGCAGAAGGCAACTTGACAAGAAATGATAAAAACATTTAGAACGGATGTGAAC 	ALCGAALCATGGAALCCCTTGCATGGCTCTCAGATTCACCTTTAWTTGATCTTTAWTAACTTTTTTTTTT
ery Mal St Loca tches	422	482	542	50.2 497	557	722	2H2	337	506 797	46.2 857	917	1082	1142	1202	1262	1422	182
Cure: Best	3 3	5 á	· · · · · · · · · · · · · · · · · · ·	5 5	5 8	5 8		30 Ag	30 G	े वि	oy.	÷ ₹	ch ch	S S	§ 8	op dy	ठ व

ć	_	
Ò	+	
q	_	HIGAAIGEGGTEGFCELELAAFELLE 1396
QY		ATCITICICCEGLAAGAPOTCCAAAGA 1561
45	, -	APCHICLOCTGIANGATCICCAAASA 1456
Qy	1	CAAATGCAGAGACAAGCAAGTTGAG 1621
q	1	CAAATGCAGAGACAAGCUTAG 1514
δλ	7	CICITICACIGITITALAAAAAAGEGT 1581
qu	1	CICITICACTGITHIAIAAAAAGIGI 1575
Qy		GFGAAGGCCTTCTGTCTGAGGAGGAGTAA 1741
Db	Db 1577 AIGGGTAGCCIALCHOMBATACACTITICATAAAAATAACACTICAAAAAAAAAAAA	GIGAACGCCTCIGTCIGAGCACCCAG 1636
Οŷ	_	ACACCC FCCAGAATGAGTA FGAACT CA 1801
qu	٦	ACACCCTICAGATAGATATGAACTCA 1696
ćσ	r-4	GIICCAIGTAIGGCATAIGCAAAGIGA 1861
qu	-	GTTCCATGTATGCAAAGGA 1756
ολ	-	CAGCATACAAGGATCTTGCTCATGCTG 1921
qq	1	CAGCATACAAGGATCTTCCTCALGCT3 1816
δλ		AAGAGGAGTATGATTCTATTATAGTAL 1981
qq	_	AAGAGGAGTATGATTATATATATTATATATATATATA
ć	۲,	CAAAIAIIIIGGAGIAIGGIIGGAGA 2041
qq	-	CAAATATTTTGCAGTATGCTTCCACCA 1936
οy	CI	GICGAACCCTIACAACITTACIACIT 2101
q 10	П	CICSAAGUCCTTACAAGTTICCTAGT 1998
ΟŊ	(1	HIIGACCCTGAAGAGTGCAIAIAAAA 2161
q .	-	TTTCACCCTGAAGAGTCCATATAAAA 2056
- 0 <sub>Y</sub>	C1	CICCAAGATCAAGAATCTIAGIAICAA 2221
qq .	2	CTCCAAGATCAAGATCTTAGTATGAA 2116
ΟŊ	C;	ACAAAATAAAFCAGATCCTATCTAAYA 2281
qq	2	ASAAAAIAAATGAGAIGGIATGIAAGA 2176
ΟŸ	C)	GCAACCTCCTAAACCATCAAAAAC 2341
qq	2	GCAACCCTCCTAAACCACTGAAAAA 2236
δý	2	ATGGAAGTAAACATCTCCCAGGAGAGT 2401
υķ	2237 TACCCTTCATATTCAA	
ΟŊ	2402 CCAAATTTCAGGAGAAACTGGGGAGAAATGAG	CTACTOGAACACGAATGCAAAAGGAGA
qq	2297 CCAAATTTCAGCAGAAACTGGCAGAAATGACTT	TACTCGAACACAAATGCAAAAAGCAGA
QY	2462 AAATGAATGATAGGATAGGTGAAAGAA	AAGAGAAATGAGGATGTCAGGAGGTTG
qo	2357 AAATGAATGATAGCATGGATACCTCAAAGAAG	AAGAGAATGAGGATGTCAGGAGGTTG
ςò	Qy 2522 GIGGAFAFIGIGIAFAFFTGGAITCAFFGIG	TCTCACAGATGTGACTGTATAACTTTO

40	2417	GEGGACACIO DELLA D	76
6.5	7847	CCAGGLICIGITIATODO ACATITAATA EGILCAGGLCTITITG LOGATATAAAATGLG 2641	4.1
â	2477	CCAGGTTCTGTTATGGCCACATTAATATCTTCAGCTCTTTTTGTGGATATAAAATGTG	2536
5	2642	ONGARIO NATIGITATO GATACCIANG CACITGANA TOTANG TANTATATA 2701	01
3	1857	PAGATOTAATIGETTOOTGATTOOTAAGCACTTGAATGTTAGTGATTGTTATTATA	2596
5	7077	CARGATIGAAAATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCTGTTTGCTC	2761
ź	7647		56
5	276,2		21
<del>4</del> -1	2657	TICCAAAGTAAATTGCTGTGCTTTATGGAAAGTAAGAAATGCCCCTAGAGTGGAGTCCT 2719	16
50	2822	GATAACCCAGGCCTGTCTGACTTTGCCTTGTTTGTAGGATATAGGTGATGTTGCT	2881
÷	2717	GATAARYCAOOYYTGTELETTITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	2776.
5	2HH2	CTGTTTTTATTAATTTTATATGTATATTTTTAATTTAACATGAACACGCTTAGAAAAT 294	41
40	11.17	CTGTIIIFATTAATIIATATGIATTTTTTTTAATITAACATGAACACCTTAGAAAAT	2836
67	2942	GIGLOCITATOTATOTATOTATOTATITATOTATOTATOTATOTAT	3001
403	CB 87	GEGEGCALOLATION AND ANALYSIA STREET CONTROLLATION OF S	2896
Ś	3005	AACTCTTCTGCAAAAATGGATATTATTAGAAATTAGAAAAAAAA	3061
<u>a</u>	28.67	ARCTCTTCTCCAAAAAABGGATATTATTAGAAATTAGAAAAAAATTACTAATTTTACACAT	2956
<i>\$</i> 5	1062	TANATTTTATTTTACTATTGGAATCTGATATACTGTGTTGTTTTTATAAAATTTTGCT 312	21
90	1567	FAGALLIALITIACIATEGGAALCEGATALACEGIGGEGGEGETITALAAAATTTGCE	3016
6	1122	FT FART TARATARARGCTGGGARGCARARGCATATGATGATGATGATGATGATGATGATGATGATGATGAT	
Lik	4017	TTTAATTAAATAAAAGCTGGAAGCAAAGTATAAACAATATGATACTATGTTTTTTTT	3076
5	1182	**************************************	4.1
â	1077	CAGATTTCATACTTCAGAATGTAAAAGAACTTACTTCTTTTTTTT	3136
5	1747	TITITAAAIGAGGATTATGATAGT 3266	
45	11.47		

Search completed: January 18, 2003, 04:26:40 Job time : 119.224 sees



```
(without alignments)
6107.852 Million cell updates/see
                                                                                                                             January 18, 2003, 04:31:54; Search time 62:1223 Seconds
                                                                                                                                                                                                                                                               1 MEKVSSVDGVLGGYLQKKKE.....TRMQKQKMNDSMDTSNKEEK 851
                  Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                   nucleic search, using frame_plus_p2n model
Gentore version 5.1.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       total number of hits satistying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                         194868 seqs, 222944149 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                              0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                            Xdapop 10.0 , Xdapoxt
Ydapop 10.0 , Ydapext
                                                                                                                                                                                                                                                                                                                                                                        Fqapop 6.0 , Fqapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fost processing: Minimum Match 08
Maximum Match 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Maximum DB seq length: 2000000000
                                                                                                                                                                                                                     US 09+026-459A ++
                                                                                                                                                                                                                                                                                                       MISOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0
                                                                                                                                                                                                                   Title:
Perlect score:
                                                                                                                                                                                                                                                                                                         Secondary Lables
                                                                                   M protein
                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                               Run on:
```

Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## Store Match Length DR ID Description 472 100.0 4321 10 05-09-469-522 32 Sequence 32 Appl 447 99.9 455 10 05-09-469-522-80 Sequence 28 Appl 4467 99.9 455 10 05-09-469-522-10 Sequence 28 Appl 4467 99.9 455 10 05-09-469-522-1

Person 1.1

	Sequence 1941, Ap- Sequence 266, App- Sequence 216, App- Sequence 3, App- Sequence 1, App-1 Sequence 1, App-1 Sequence 1, App-1 Sequence 1, App-1 Sequence 146, App- Sequence 146, App- Sequence 146, App- Sequence 216, App-	TUMOR SUPPRESSOR
9 08-09-954-541-144 10 08-09-860-211-7 10 08-09-469-522-50 10 08-09-469-522-40 10 08-09-469-522-40 10 08-09-469-522-40 10 08-09-469-522-40 10 08-09-469-522-48 10 08-09-469-522-48 10 08-09-469-522-48 10 08-09-469-522-48 10 08-09-469-522-48 10 08-09-469-522-48 10 08-09-469-522-44 10 08-09-469-522-44 10 08-09-469-522-44 10 08-09-469-522-44 10 08-09-669-758-758-758-758-758-758-758-758-758-758	10 US - 0.9 864 761 8181 10 US - 0.9 864 - 824 A 246 10 US - 0.9 964 - 824 A 246 10 US - 0.9 964 - 824 B 26 10 US - 0.9 964 - 25 8 164 10 US - 0.9 960 - 25 8 164 10 US - 0.9 960 - 25 8 164 10 US - 0.9 967 - 768 A 186 9 US - 0.9 - 967 - 768 A 186 9 US - 0.9 - 967 - 246 10 US - 0.9 985 - 5 8 8 10 US - 0.9 - 982 - 0.9 A 1 10 US - 0.9 985 - 5 8 8 10 US - 0.9 985 - 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	E.  RETINOBLASTOMA  SAMSTONS  SAMSTO
0.000000000000000000000000000000000000	1.5 5.4 4.1 1.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2	AN 469-522-32  THE OF PRINCE OF STORY O
क्र किल	2.1 2.4 2.1 2.4 2.1 2.4 2.1 2.1 2.2 2.4 1.2 2.4 1.2 2.4 1.2 2.4 1.2 2.4 1.2 2.4 2.1 1.2 2.4 2.4 2.1 1.2 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2	RESULT 1  198-04-469-522  1 Sequence 42, 1 of the 1 of th

```
8. LeupheAlaLeupheSertysLeuGluArgThrCysCluLeulleTyrLeuThrGlnPro 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [14] SerSerSerIleSerThrGluIleAsuSerAlaLeuValLeuLysValSerTrpIleThr 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 PheLeuLeuAlaLysGlyGluValLeuGlnMetGluAspAspLeuValIleSerPheGln 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18. ProTyrLysThrAlaValIleProIleAsnGlySerProArgIhrProArgArgGlyGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           127 ACTIGAGGTACAGAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                247 TIGITIGGAGICTICAGGAAATIGGAAAGGACAIGTGAACTIAIAIATATATGACACAAACCC 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCAGI I GGATATCI ACTGAAATAAA LICTGCATTGGFGCTAAAAGT FFCTTGGATCACA - 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        427 ITAATGCTATGTGCGTGACTATTTATTAAACTCTCACCTCCCATGTTGCTCAAAGAA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         547 AACAGGAGTGGACGATAGCAAAACAACTAGAAAATGATACAAAATTATTATAGAAGTTCTC 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20) CystysCluHisCluCysAsmileAspCluValLysAsmValTyrPhetysAsmPhetle 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MotelutysValSerSerValAspGlyValLeuGlyGlyTyrIleGlnLysLysLysGlu 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7 ATGGAGAAAAGTTTCATCTGTGGAGTATTGGGAGGTTATATTCAAAAAGGAA 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41 ThroluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLysGlu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09 026 459A-33 (1-851) x US-09-469-522-32 (1-3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Comservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
                                                                                                                                 REFERENCE/INCRET NUMBER: UTXC:506
IELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                : SEQUENCE DESCRIPTION: SEQ ID NO: 32: 05-09 469-522-32
                   APPLICATION NUMBER: 09,026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                                                                                                            REGISTRATION NUMBER: 41,071
                                                                                                                                                                          TELEPHONE: 512/418-3000
TELEPRA: 512/474-757
INF RMALTON FOR SEQ ID NO: 32:
SEGSIENTE CHARACTERISTICS:
                                                                                                                                                                                                                                                                        LENGIH: 3323 base pairs
                                    FILING DATE: -Unknown>
ATTOFNEY ZAGENT INFOPMATION-
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                              13 CATION: 7..2559
                                                                                                                                                                                                                                                                                                nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100,00%
100,00%
100,00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4372.00
                                                                                                                                                                                                                                                                                                                                             ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                           Š.
                                                                                                                                                                                                                                                                                                                                                                                        NAMEZKEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity:
Owers Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Prod.
```

<u>a</u>

ŝ â â ŝ Ē ŝ ŝ Ę ŝ ŝ

```
1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1147 GAATICCATGCTTAAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGCAAAGTIGTG 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1267 INTRICAGAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTCCCCATGGATT 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221 ProPheMetAssSerLeuGlyLeuValThrSerAssGlyLeuProGluValGluAssLeu 240
                                                                                                                                                                                                                                                                                                                                     1567 AATAATCACACTGCAGCAGATATGTATCTTTCTCCTGTAAGATCTCCAAAGAAAAAGGT 1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      261 AspHisAspLysthrieuGhrThrAspSerficAspSerPhcGluthrGluargiht Pro 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     381 GluserMetLeuLysSerGluGluGluGluArgLeuSerlleGlnAsnPheSerLysLeuLeu 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             401 AsnAspAsnIlePheHisMet.SerLeuLeuAlaCysAlaLeuGluValValMetAlaThr 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              441 LeuAsnValleuAsnfeufysAlaPheAspPheTyrLysVallTeGluSerPheTfe 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         461 AlaGluGlyAsnLeuThrArqGluMetIleLysHisLeuGluArqCysGluHisArqIle 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    727 TCIAAACGATACGAAGAATITAICTIAAAAATAAAGAICIAGAIGCAAGAITAITTIG 786
                                                                                                                                                                                        481 MetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuTleLysGlnSerLys 50u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            501 AspargGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGln 52v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541 SerihrihrangValasmSerihralaAsmAlaGluThrGluAlaThrSeralaPhoGlu 560
                                                                                                                                                                                                                                                                                                                                                                                               281 ArgLysSerAsnLeuAspGluGluValAsnVallleProProHisThrProValArgThr
                                                                                                                                                                                                                                                                               301 ValMetAshThrileGinGinLeuMetMetileLeuAshSerAlaSerAspGinProSer
                                         â
                                                                                                                                                                                        <u>a</u>
                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                               ō.
                                                                                                                                                                                                                                                                                                                                                                    준
                                                                                                                                                                                                                                                                                                                                        70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
```

```
HITTELLE HITTELLE HITTELLE CANADACACA DAGAMANICA ATALA ATALA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1587 ACCAGAGGCATTGAAATCTACCTGTTTGACTGTTTTATAAAAAAGTGTATGGGGTA 1746
                                                                                                                                   1987 ACATTCAAACGTGTTTTGATCAAAGAAGAGGAGTATGATTCTTATAGTATTCTATAAC 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2227 GGT TGGCAACACTAAAAAATGACTCCAAAATGAATGAATGTTAGTATGAATTGGTGAA 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HITTELLITETTE SACONATIAL SALGIGITETTE HITTELLITETTE SACANASISAGANIAIA 1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2287 TYA FEGGGACTTELGAGAAD FEGAGAAA AAA FGAGATGOTA FGAAGGGACGT - 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601 HistleflefrpThrLeuPheGluHisThrLeuGlnAsnGluTyrGluLeuMetArqAsp 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                              6.21 Ar HistonAspillelloMotMotCysSetMotTyrClylleCystysVallysAsmile 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661 ThiPheLysArqVallzeulleLysGluGleglarlaTyrAspSerileIleValPheTyrAsp 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         681 SerValPheMetGlnArdLeufySthrAsnileLeuGlniyrAlaSerihrArgProPro 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        701 ThrteuSerProfileProHistleProArqSerProTyrtysPheProSerSerProteu 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               741 OlymontolbrenchrigsmetthreroArgSerArgileLeuValserileGlyGlu 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         801 AspileGluGlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSerLysPhe 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             821 OhollalystenAlaoluMetilarSerihaArgThrArgMetGlnLysGlnLysMetAsn 840
                                                                                       581 AlalyricuArqicuAshibricuCysGibArqicuIcuSerGluRisProGluIcuGlu\,600\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hu, Shi Xue
Empedici, William E.
Zhou, Yunli
TITLE of INVENTION: MODIFIED RETINGMIASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2527 GATAGCALGCALACCTICAAACAAGGAAGAGAAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841 AspSerMetAspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application 08/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: P.D. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Hotiq Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patheut No. US29020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US 09 469 522 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seeptender 50,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
```

```
102 SerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrp1leThrPhe 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            379 AGTTCGATATCTACTGAAATTCTGCAITGGTGCTAAAAGTTTCTIGGAICACATTT 4+H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HITTHEFFER HEALT HITTHEFFER HEALT HEALTHEFFER HEALT HEALTH HEALTH A 498 TATTAGCTANAGGGGANGTATTACANATEGANGAGAGALGAGTIL A 111 CAGATA 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            122 LeuteuAlatysGlyGluValLeuGlnMetGluAspAspLeuVallleSerPheGlnLeu 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22 TrpGlylleCysllePhelleAlaAlaValAspLeuAspGluMetSerPheThrPheThr 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42 GluLeuGlnLysAsnileGluIleSerValHisLysPheAsnLeuLeuLysGluIle 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-08-026-4548-43 (1-851) x 75-06-469 522-40 (1 4492)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 0TXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mat chess:
                                                                                                                                                                            APPLICATION NUMBER: US/09/469,022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indeas:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-Dos/MS-Dos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SHOUENCE DESCRIPTION: SEQ ID NO. 30:
                                                                                                                                                                                                                                                    APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                 FILING DATE: 22-Dec-1999 CLASSIFICATION: * Unknown.
                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
                                                                                      MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 3392 base pairs
                                                                                                                                                                                                                                                                     FILING DATE: *Unknown.*
Alforney/Adent Information:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7..2628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 467.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       858.55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: Linear
                                   COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: CDS
CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
```

Methentystyllinininininininininininininininininini	Metteuteutysclupro 16 	oargargdlyglnasn 18 	effectuvalleudys 20 	eLysAsnPhellePro 22 	uValGluAsni.cuScr 24 	aArgi.euPhel.euAsp 26 	lnArgThrProArg 28                         gagaagaccagga 91	Threrovalargihrval 30 	AspdinProSergiu 3 HILLIHILLIHIII BATCAGCITCAGAA 1	uSerlleLeuLysArg 	aValClyClnclyCys 	rîyrargValMetGlu 	PheSerLysLeuLeuAsn 	ValValMctAlafhrfyr HIIIIIIIIIIIIII GTIGIAATGGGCCACAIAT	SerPheProTrpHeLeu HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	GlustipheileLysAla 	CysclutisarglicMe FILLIIIIIIIIIIIIIIIII TGTGAACATCGAATCAT	HelyschscriysAsp Hellilililili AttAAACAAICAAAGAC	
25.2 Photo 1.15.2 A A 10.0 Photo 1.15.2 Phot	AspTyrPhelleLysLeuSerProP 	HeproHeashGlySerProargf HELLHHILLHHILL ATACCATTAALGGFTCACTCGAA	ATALYSGInLeugluAshAspThrA THITITITITITITITI GCAAAACAACTAGAAAATGATACAA	GlaValLysA: TITITITI GAGGTGAAAA	Thrserasnd 	AsniysAsplicuAsp 	TleAspserPheGl 	VallleProProHis 	Heleuasnserala Hillililililili Battrtaaatreage	ThrValAsnPrc 	ClutysPheAla 	ileudiyValArgilet 	LeuSerIleGluAsi 	Act Scrieul aud acysalaieuch 	mLeuaspSerGlyThraspLe 	PheAspEheTyilysValli 	ArgGluMetileLysHis5euGl 	ticuSerAspSerProteuPhcAs ttrbtffffftttttttttta broggingagattgaggintarttga	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
	Metters Hilli	2 TYTLYS:	2 Arqsora 	Lysgluff 	2 Phomota  -        TITATGA	AAAGG	52 HisAs 	12 Lysse 1111 19 AAAAC	Mot As	AsnLe	VALLS FILLS	362 Valor 11111 159 GICGA	SerMe 	2 AspasmilePhebrilliff	2 SerArgSerThre 	AsnValleuAsn 	2 GludlyAsmled 	2 ClaserLeaAla TELLETILLE GAALGETTGEA	3 6 7

```
1759 CAGAAGCCATIGAAATCTACCTCTTTCACTGTTTTATAAAAAGTGTATGGGCTAGCC 1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1939 CATTTGGACCAAATTATGATGTGTTCCATGTATGGCAIATGCAAAGTGAAGGATATAGA: 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2539 CAGAAATIGGGGGAAAIGACTIGTAHHHHHHHHHHHHHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2419 CTCAAAAGAAGTGCTGAAGGAAGCAACCCTGAAACGACTGAAAAAACTACGCTTTGAT 2478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2479 AITGAAGGAICAGAIGAAGGAGAGIAAAGIAAACAICICCCAGGAGAGICCAAAIIICAG 2538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      622 HislemaspGlnileMetMetCysSerMetTyrGlyileCystysVallysAsnileAsp 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       602 IlelleTrpThrLeuPheGluHisThrLeuGlnAsnGluTyrGluLeuMetArqAspAra 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                682 ValPhemetGlnArqLeuLysThrAsnIleLeuGlnTyrAlaSerThrArqProProThr 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           902 Techerly SerAspoltAlaAspolySerLyoHisLetProdiyolySerLyoPhedin 821
762 PheClyrhrSerGludgePheClndysllrAsuSlametValCysAsnSerAspArdVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         782 LeatysArgSerAlaGloGlySerAsnProProLyoProLeaLyoLyoLeaArgPheAsp
                                                                                                                                                  562 GlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArdLeuAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             582 TyriceArgl.cuAshThricaCysCluArgl.cal.caSerGluHisProGluLeuGluHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1819 TATCTCCGGCIAAATACACTTTGTGAACGCCTTCTGTGTGTGAGCACCAGAATIAGAACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       642 (cd.);sihet;jsfferleva);hratafyrt;sasplacifolioatoatafaforafolioftafaf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    722 TloProflyOlyAsaIleTyrIleSerFraLewLysSerProfyrLysIleSerGludly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2299 THEFTER HELLER HEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2359 TTCGGGACTICIGAGAAAILCCAGAAAAIAAALCAGAIAGGAACGAACGAACGAACGAGAGAA
                                                                                                                                                                                                                                                      1639 AAFCACACTGCAGCAGCAATATGTALCTITCTCC1GIAAGATCTCCCAAAGAAAAAAGGTTCA
                                                                                                                                                                                                                                                                                                                                                         542 ThrThrArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1999 CTTANATICANAATCATIGIAACAGCAIACAAGGAICIICCICATGCICIICAGGAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              662 PhetysArgValleulletysGluGluGluTyrAspSerllelleValPheTyrAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           742 LeuProThrProThrLysMetThrProAigSerAiglleLeuValSerIleGlyGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2599 ACCATICCATIACCTICAAACAAGGAACACAAA 2628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              · 842 SerMetAspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ċχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            :~
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
```

RESULT 3 : He-09-469 522-28

```
THEFT FOR THE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    42 clubeugladysAsalieGluIIeSerValHisLysPhePheAsaleuLysGluIIe 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6.2 AspthrSerthrEgsValAspAsnAlaMetSerArgLeuLgsLysLysTyrAspValLeu 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22 Frp:1911eCysilePhelioAlaValAspicuAspGluMetSerPhelhrPhefhr 41
                                                                                                                                                                                                                            Remediet, William E
Zhou, Yunli
TITLE of INVENTION: MoDIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US UM U26 459A 44 (1 851) x US O9 469 522 28 (1 3455)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCEZOOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/05/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC COMPATIBLE OPERALING SYSTEM: PC DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOZATION: 7, 2691
SECTENTE DESCRIPTION: SEC ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22 Dec 1999
CLASSIFICATION: * Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READANTE POPM.
MEDLUM TYPE: Floppy disk
Sequence 28, Application US/09469522
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGIH: 8455 base pairs
TYPE: muchele acid
                                                                                                                                                                                                                                                                                                                                                                                     FECTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               512/418 4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       · Unknown ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY, ZAGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 512/418 300
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIREET: P.O. BOX 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEC ID NOT 28: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.90%
                                                                                                                                         APPLICANT: Xu. Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 56.7 , 00
                                                                                                                                                                                          Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PoPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34.8.48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
21P: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY. CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Rest Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15 09 469 522 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
```

```
1042 ATGAACACTATCCAACAATTAATGATTTTAAATTCAGCAAGTGATCAACATTCAGAA 1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   222 GTGGAAATTGGATCACAGGGATACAAACHIGGAGTTGGTTTTACGAGTAATAGGA 1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1102 AATCTGATTTGGTALIITAAGAAGIGGAAGGAAAAAAAAGAAGIALAGTAAAAAAAAAGA 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              282 TCCATGCTTAAATCAGAAGAAGATTATCATTCAAAATTTAGCAAAYTTYTGAAT 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1402 AGCAGAAGTACATCTCAGAATCTTGATTCTGGAACATTGTCTTTCTCTTTCCCATGGATTCTG 1461
                                                                                282 EgsSerAsnLeuAspGluGlaValAsnVallleProFroHisThrProValArgThrVal +01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     802 MetAsmThrileGinGinLeuMetMetHeLeuAsmScrAldSerAspWlhnProSerGlu 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         362 ValdluffedlySerGlnArdfyrLySLeudlyVaiArqLeufyrlyrArdValMetGlu 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         382 SerMetLeuLysSerGluGluArgLeuSerIleGluAsuFheSerLysLeuLeuAsn 401
                                 122 LeuteuAlatysClyCluValLeuGinMetGluAspLeuVallleSerPheMinteu 14)
                                                                                                                                                                                             502 TTATTAGCTAAAGGGGAAGTATTACAAATGGAAGTGATCTGGTGATTTCATTTCAGTTA 561
                                                                                                                                                                                                                             142 MetLeuCysValleuAspTyrPhelleLysLeuSerProProMetLeuLeuLysGluPro 161
                                                                                                                                                                                                                                                                                                  162 TyrLysThrAlaValTleFrolleAsnclySerProArqThrProArqArqGlyGlnAsn 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                262 HisAspLysThrLeuGlnThrAspSerIleAspSerPheGluThrGluArqThrProArq 2H1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        422 SerArgSerThrSerGluAsnLeuAspSerGlyThrAspLeuSerPheProTrpHeLeu 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          322 AsnLeuIleserTyrPbeAcnAcn?ysThrValAsnFrotyn03taSert1eGodtysArg
                                                                                                                                                                                                                                                                                                                                                                                             222 PbeWethanSerfeudlyteaValffarserAnnilyteaFrasfraslaValdiaAaadea3ea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       802 TTTATGAATTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTLGAAAAFCTTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            862 AAACGATACGAAGAATTTATCTTAAAAATAAAAGATGTAGATGGAGATTATTTTGGAT
                82 PheAlaLeuPheSerLysLeuGluArqThrCysGluLeuIleTyrLeuThrGlnProSer
                                                                                                                                                                                                                                                                                                                                                                        182 ArqSerAlaArq11eAlaLysGluteuGluAshAsp1brArq11e11e11uVa11auCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        242 lysargTyrCluClulletytketysAsnLysaspLeuAspAlaAtaLeuPleLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  342 ValLysAspileClyTyrileReLysCloLychheAluLysAluValClyClnClyCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . c.,
                                     90
130
130
                                                                                                                  a
                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                        Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                        ŝ
                                                                                                                                                                                         겲
                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ĉ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
```

```
1522 GANGGTAACITGATAAGAGAAATGATAAAACATITAGAACGATGTGAACATGAATCATG 1581
                                                                                                                                                                                                                                                                                                                                            1702 ANICACACIGCAGCAGATATGTATCTTTCTCCTGTAAGATCTCCCAAAGAAAAAGGTTCA 1761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1862 TATCTCCGGCTAAATACACTTIGIGAACGCCTTCTGTCTGAGCACCCGGAGAATAGAACAT 1941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2002 CALLIGGACCAAALLALGAFGFGFTGFATGGCATAFGGAAAGFGAAGAATATAGAG 2261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2062 CITAAAIICAAAAICATIGTAACAGCAIACAAGAATGIIGGIGAIGGIGTICAAGGAGAAA 2131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          522 AshHisThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLysLysClySer 541
                                                                            462 GludlyAsnLeuihrarqGluMetileLysHisLeuGluArqCysGluHisArglleMet 481
                                                                                                                                                    482 GluSerf.CuAlaTipi.euSerAspSerProbeuPheAspLeuffellysGluSerLysAsp 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                              56.2 Old yrProleuLydderThrSerLeuSerLeuPhdTyrLysLysValTyrArgleuAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      582 TyriconArgleuAsnihrLeuCysCluArgleuLeuSerGluHisProGluLeuGluHis 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 602 HellefrpThrLeuPheGluHisThrLeuGlnAsnGluTyrGluLeuMetArgAspArg 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6.1. HistonAspflnIloMorMatOysSerMarTyrGlyIloOysE,sValIlysAscIloAsp 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 642 LeutysPhetysPierleValThrAlaTyrtysAspteaProHisAlaValCleCLuThr 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       682 ValPheMetGloArqLeuLysThrAsbileLeuGlnTyrAlaserThrArqProFroThr 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     742 LeuProThrProThrLysMetThrProArgSerArgIleLeuValSerIleGlyGluSer 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    802 lledi 81ySerAspülaAlaAspülySerLysHisLeuProGlyGluSerLysPhedin 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                    =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
```

```
2842 ATEGARGATANATRAARGARATORAARSTARAGATOTOCOAGAGAGTOCAAATTTOAG 2601
                                                                             922 CinigstrualaciuMetthrEeribrargibrargMetCinigsOlnigsMetaanaap 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: MODIFIED RETINOBLASIOMA HUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4555
850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches:
Jenservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-026-459A-33 (1:851) x US 09 469 522-1 (1-3555)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE, Arnold, While & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AFFLIATION NIMBER US, 09, 469, 522
FILING DATE: 22-Dec-1999
CLASSIFICATION: CURRIGARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PEFFRENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER, IBM FC COmpatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                2662 AGCATGGATACHICAAACAAGAAGAGAAA 2691
                                                                                                                                          842 SerMetAspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER 04/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SHOURNCE DESCRIPTION: SHO ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAMÉ: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                           Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chrknowns
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 77210-4433
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                           Sequence 1, Application IS/09469522
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 3555 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                           PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4367.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  **

が B ・ か ご
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME, TELT COS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Personal Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                      9 469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
                                                                                                                                                                                                                        RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                                                  Ч
                                                                                                                                          ô
```

2.2 Trychylletystretheitediddiddillillillillillillillillillillill
2.2. 1140   11111   111
2. 1

```
2 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .501 AGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTTTTCCCATGGATTTTC 1560
                                                                                                                                                                               1621 GAAGGCAACTTGACAAGAAATGATAAAACATTTAGAACGATGTGAACATCATG 1680
                                                                                                                                                                                                                                                                                           2041 ATCATCTGGACCCTTTTCCAGCACACCCTGCAGAATGAGTATGAACTCATGAGAGAGGG 2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2401 ATTCCTGGAGGGAACATCTATATTTCACCCCTGAAGAGTCCATATAAAATTTCAGAAGGT 2460
382 SerMetLeuLysSerGluGluGluArqLeuSerTleGluAsufheSerLysLeukan 401
                                                    402 AspAsnilePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThrTyr 421
                                                                                                           422 SerargSerThrSerGInAsni.euAspSerGlyThrAspLeuSerPheProTiplTeLeu 441
                                                                                                                                                                  442 AcnValLeaAsnLeuLycAlaPheAspFheTyrLycVallTesTuScrFhalleLysAla 461
                                                                                                                                                                                                                      462 GluGlyAsnLeuThrArgGluMet.HeLysHisLeuGluArgCysGluHisArgHleMet 481
                                                                                                                                                                                                                                                                            482 GluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGluSerLysAsp 501
                                                                                                                                                                                                                                                                                                                                  502 ArgGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGlnAsn 521
                                                                                                                                                                                                                                                                                                                                                                                       562 GlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArqLeuAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          582 TyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGluHis 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              602 (Helletrpth LeaPhellnHisTh LeaGinAshGlufyrGlufeuMetArgAspArg 62)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        642 LeuLysPheLysIleIleValThrAlaTyrLysAspLeuProHisAlaValGluThr 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              662 PhetysArgValleuffetysGluGluGluffyrAspSerffeffeVaiPhefyfAsnSer 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    682 ValPheMetGlaArgLeuLysThrAsnileLeaslnTyrAlaSerThrArgProFnr 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 542 ThrahrArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGluThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΞĢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                        9
                                                                           QQ
                                                                                                         ò
                                                                                                                                    Db
                                                                                                                                                                                      qq
                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                      οy
                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                             \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q (1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \ddot{\circ}
                                                       ŝ
                                                                                                                                                                 ô
```

-

2.2   ASCITACINGANANACATAGNANISACIOCATANATICITITAN/TIACITAAAAIAAAII   551	322   ASOLGEITICEGETTYPHEASEASECYSTELYQIASOFICELYSGIUSETTICLECULYSAFG   441   111111111111111111111111111111
# # # # # # # # # # # # # # # # # # #	
14. Enginethe pother passer the branch passer the passe	No.   A   A   A   A   A   A   A   A   A

```
482\ {\rm GluSerLeuAlaTrpLeuSerAspSerPrefeuPheAspLeuTleLysGluSerLysAsp} 501 ,
                                                                                                                                                                                       1632 AGGAGAAGTAGATCTCAGAATCTTGATTCTGGAACAGATTGTCTTTGCCATGGATTCTG 1691
                                                                                                                                                                                                                                                                                                                                                                                                                                  2052 CASAAGCCATTGAAAICTACCICTCTTCACTGITTTAAAAAAAGTGTATCGGCTAGCC 2111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2232 CALTEGRACIAMATEM GATGTTCCALGTATGCCATATGCAAAGTGAAGAATATAGAC 2291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25.32 ATTCCTGGAGGGAACATCTATATTTCACCCCTGAAGGGTCCATATAAAATTTCAGAAGGT 2591
                                                                                                                                                                                                                                                                                                                                                                                    462 GluGlyAsnLeuThrArqGluMet.HeLySHisLeuGluArqCySGluHisArqIleMet.481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   502 ArgGluGlyProThrAspHisLenGluSerAlaCysProLeuAsnLeuProLeuGlnAsn 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             54.2 Thr thrarqValAsnSer fhrataAsnAlaGlufhrGlnAlaThrSerAlaPheGlnffhr 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               562 GlulysProfentysSerThrSerLeuSerLeuPheTyrLysLysValTyrArgLeuAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 682 ValPheMetGlnArqLeuLySThrAsnlleLeuGln1yrAlaSerThrArgProProThr 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           702 LeuserProffeProHislleProArqSerProTyrLysPheProSerSerProLeuArg 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74.2 LouProThrProThrLysMet.hrProArgSerArgTTeLeuValSerfleGLyGluSer 761
422 SerArgSerThrSerClnAsnLeuAspSerGlyThrAspLeuSerPheProTrplleLeu 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       582 TyrLemArgLeuAssThrLeuCysSluArgLeuLeuSerGluHisFtoSluLeuGluHis 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               602 HelleTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLcuMctArgAspArg 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         642 LeuLySPheLySTleTleValThrAlaTyrLysAspLeuProHisAlaValGlnGluThr 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 762 PhedlyThrSerGluLysPheGluLysIleAsuGlnMetValCysAsuSerAspArqVal 781
                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
```

```
HITTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELlettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    802 IleGluGlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSerLysTheCln 821
                                                                                                                                                                                                                                                                                                                                                                                                                    822 GlbLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysGMetAShAsp 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Recombinant Adenoviral Vector and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: /product - "KH" /NOTE- "relinoblastomma tumor suppressor" SEQUENCE DESCRIPTION: SEQ 1D No: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 016930-00092008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 25-OCT-1993
APPLICATION NUMBER: US 08/233,669
FILING DATE: 26-APR 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 15-FEB-2000
APPLICATION NUMBER: US 08/142,669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/328,673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/860,211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2892 AGCATGGATACCTCAAACAAGGAAGAGAA 2921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    842 SerMetAspThrSerAshLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: 18M PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Smith, Timothy S.
REGISTRATION NUMBER: 35,367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 18-May-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Gregory, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Maneval, Daniel C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 2995 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Sequence 7, Application US/09860211
; Patent No. US28020147212A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: MC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      139..2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-860-211-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-860-211-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                               ô
```

Alignment Scores:

	21	41	61 552	81 512	101 672	121 732	141	161 852	181 912	201	221 1032	241 1092	261 1152	281 1212	301 1272	321 1332
	luficu 	eThr        :ACT	luIle       AAATT	ll.eu        ATTG	roser          ccadc	rPhe       ATTT	Inteu            AGTTA	HPro HIII ACCA	lnAsn        AGAAC	uCys HIHI CTGT	ePro HHH ACCT	user       TTCT	LeuAsp         TTGGAT	oArg      ACGA	rVal       TGTT	ergin           cagaa
	C - C	ThrPh 	ő – ã	AspVa         ATGT	In P	ileth.         Arcac	shed IIII	Lysgl            AAAGA	75 110	1111	Phe:1	AsnLeus 	arkete 	P = 00	된무	∵ — t
и		rPheThr          GTTCACT	LeuLeud 	LysTyrasp 	uThrG          GACACA	요=명	5 - 5	동크달	ArgArgGly             AGGCGAGGI		LysAssF            AAAAATT	161u2 	gleel       ATTA	nArg1         GAGAA	0Vall          AGTTI	pGlnPrc              TCAACC]
2944 8449 0 1 0		pGluMetSer 	PheAsnLe 	Heulysly 	TyrLe         ATTT	ValSer         STTTCT	Valii        	MetLeul               TGTTGC	ProAr 		Phety         TCAA	coGluValGluAsn 	AlaAr       GCAAG	rhrg1 IIIII ACACA	ThrPr 	SerAs        AGTGA
tive: es: 2995)	r i l e i i i l l ratt	spGlu         argAG	rePhe          CTTT	oulleu         GTTG	TATA	I I I I I	splieu         NTCTG	Copped 	TATAL	irarg IIII ZAAGA	ulfyr      TTAT	SuPro	UASP 	neGlu IIII TGAA	OHis	rala:   H.H.    CAGCA.
h: h: tc tc (1		LeuA 	LysP	Argl.c             AGACT	GT uLE	Valle  - - -  GTGCJ	AspAs         GATGI	SerPi	ProAr	AspTP (1111 GATAC	AsnVa          AATG1	G1yL6  - - - -  GGAC7	Aspl.c         GATCT	SerP}             AGTTT	ProPr 	AsnS6         AATTC
Lengt Match Consc Misma Indel Gaps:	말트였	$\sim - \circ$	ATHISI TCCAT	nAlaMetSerArqLeuld 	hrCys         CATGI	laLeu        CATIG	et61u          GGAA	ysLeu         AACTG	1ySer       GTTCA	aAsn               AAAAT	11178 	erAsn 	snlys        	leAsp         AGAC	alile       TAATT	leteu         TTTA
.098-	7V317	m 4	Serv 	nAlam        recta	Argī          AGGA	SerA        TCTG	SGL NM	I I I I I I I I I I I I I I I I I I I	Asng	SLEEUG FELLI NCTAG	SINV          GAGG	Thrs HHH MCAT	II.TSA          AAAA	SerI	IAsnV IIIII iAATG	:Met   
.00 88 88 88 68 68 03 -09	AspGP HHH MATGG	neAla HH HTGC	Staff 	ASPASI       	PHC19 1111 166A/	Teas	/allei         ATTZ	YrPhe   HIII   ATTT	rolle	TSC:	Leas IIII IIAGA	euva.        :TTGT	Yrtiei             ATCTE	hrasi IIII kerea	HuVa 	euMet        TAAT
0 4357. 99.88 99.88 994.66	erValAspGlyVa 	ePhel	nile           AII	pth:SerthtlysValAspAsnAlametSerArdLeuLeuLysLyst' 	rLyst 	relan Hell	YGlav	TGACT	IIIeE	cala: 	SASBI TAATA	uG1y1         TGGAC	u:161  -  -   -  -	uGln1           CAGA	pGluC       TGAAC	ASETHEGINGINIQUMCEMCETICICUASRSCEATASCASSCEASSCINDEO
7:	7. T.S.	. S I	laLysAsuI  ++ + +	thrty FEETA	Phese IIIII	SerTh	Lysdl   1   1     AAAGG	Valle	Alava        3CTGT	A: 411 [[[]]] 366AI	StoffischerysA Filteritiffi SAACA FGAATGTA	SerLe  - - -   CTCT	21:201 	ThrLe 	LeuAs 	Hegi Hilli Atcca
ity: iari	sval  AGII	YIle HIII BAAIC	eucha   - TACAG	hr Ser    	aLeu  ACLC	Serile	ilesAla            TAGCT	ALC J.	LysThr 	YA 13,           GCA(	: III: 4   -	Met Asni         ATGAAT	91779        	spLys'   	TASD             TAAC	an thr   1111  CACT
milan Sim h +	= = 3	1 PG 3000	Stufe FI * II SAGGI	ASPIT	PheAl,	Serse	Leale	Met Lei             AlgCl/	TyrL)        TATA	Argses Ultili AGGAG	7 7 3 1 1 1 1 1 AAAGA	Pheme       TTTAT	Lysargi HIIIII AAACGAT	HisAs Hill CAIGA	Lysser 	MetAsn! 
No.:: Ent. Si Local Mate	2 + 7 +	4.4.4	4 4 4	7 5	£ = 7	162	122	142 793	162 854	~ ~	973	222	242	262	282	0.2
Fred. Score Perce Host Query DB:	5 c3	ទី ដ	3 ន	5 G	÷ ±		V.7.	<b>3 2</b>	5 £	5 d	5 9	5 d	OY Db	50 G	69 101	8 d

```
1612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1872
                                                                                                                                                                                                                                                                                                                                                                                                                      1932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1753 GAAGGGAACTTGACAAGAGAAATGAIAAAACA11IAGAACGATGIGAACATGGAATCATS 1812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1933 AAITATATGGAGGAGAIAIGIATGIIICICCTGIAAGATCIGGAAAGAAAAAAGITCA 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2293 CTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCTGTTCAGGAGACA 2352
                                                                                9.
                                                                                                                                                               ...
...
                                                                                                                                                                                                                                                                                                                                                                                               422 SerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrp11eten 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1693 AATGTGCTTAATTTAAAAGCCTTIGAHTITTACAAAGIGATCGAAAGTITTALGAAAGGA 1752
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                442 AsnValLeuAsnLeuLysAlaPheAspPheTyrLysVallleGluSerPhetTeLysAla 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      562 GloLysProLeuLysSerThrSerLeuSerLeuFheTyrLysLysValTyrArqLeuAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   582 TyrLeuArgLeuAsnThrLeuCysGluArgLeuSerGluHisProGluLeuGluHis 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                602 HelleTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArgAspArg 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          622 HisteuAspClnfleMetMetCysSerMetTyrClyfleCysLysValLysAsnfleAsp 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       642 LeutysPhetysFletleValTtralaTyrtysAspteuProHisAlaValGlmdluthn 661 HIHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  662 PhoLysArgVall.cullcLysCluCluCluCluTyrAspScrilellcValPhotyrAsnScr 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 682 ValPheMetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSerThrArgProProThr 701
                                                                                                                                                       2113 TATCTGGGGGTAAATAPA**PTF9TGAAGGCCTGGGGGGGGGGGGGGGAGGAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1393 GTGAAGGATATAGGATACATCTTTAAAGAGAAAITTGCTAAAGCTGTGGGACAGGTTGT
                                                                                                                                                                                                                                        382 SerMetLeuLysSerGluGluGluArgLeuSerIleGlnAsnPheSerLysLeuLeuAsn
                                                                                                                                                                                                                                                                                                                                                            1573 GACAACATTTTTCATAIGTCTTTAIIGGCGIGCGCTCTTGAGGIIGTAATGGCCACATAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         462 CluClyAsmLeuThrArgGluMetIleLysHisLeuGlnArgCysGluHisArgIleMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  502 ArgGluGlyPrcThrAspHisLeuGluSerAluCysProLeuAssLeuProLeuGluAss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          542 ThrThrArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              402 AspAsmilePheHisMetSerLeuLeuLauAlaCysAlaLeuGluValValMetAlailhrigi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     482 GluSerfeuAlaTrpLeuSerAspSerProLeuPheAspLeulleLysClnSerLysAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \dot{\Omega}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;;
O
```

```
2474 TTGTCACCAATACCTCACATFOCFCGAAGCCCTTACAAGTTTCCTAGTTCACCCTTACGG 2532
                                                                                                                                                                                                                                                          702 LeuserProlleProHistleProArqSerProfyrLysPheProSerSerProLeuArg 721
                                                                                                                                                722 HeProdlyGlyAsaHeTyrHeSerProLeulysSerProTyrLysHeSerGlaGly 741
                                                                                                                                                                                                                                     742 LougroThrProThtLysMetThrProArgSerArg1leLeuValSerIleGlyGluSer 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #02 HerluglySerAsprilaAlaArprilySerLysHisLeaProdlySlaSerLysPhedin #21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         822 dinlystemAlaGluMetihrSerihrArgThrArgMetGlnLysGlnLysMetAsnAsp 841
                                                                                                                                                                                                                                                                                                                          762 Phystythr SerginLysPheClinLysTiCAsnClinMetValCysAsnSerAspargVal 781
                                                                                                                                                                                                                                                                                                                                                                                                          782 LeatysArgSerAluthaslySerAsnProProLysProLeutysLysLeuArgPheAsp 801
CITLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRALION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: 01X0:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: IISZ097469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPERALLING SYSTEMS OF DOS/MS-180S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZM93 AGCALGCALACTICAAACAAGGAGAGAAA 2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             842 SerMetAspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hu, Shi Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 22-Dec 1999 CLASSIFICATION: TERMOWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PERMIT 7
US 09 469 522 50
; Sequence 50, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              512/418 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: * Unknown > ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xu, Hong 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21P: 77210 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CENTENT USZODZÓTSTAGIAL
CENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CILY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHINIBY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . H | Y | S
                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                       ÷
                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                            5
```

```
961 AAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTGGAT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82 FheAlai.euFheSeri.ysi.euGluArgfhr?ysGlui.euHeTyrLeuthrGhroser 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       102 SerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThrPhe 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841 AAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTALLICAAAAA?TITATAKCT 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        242 (gsArgTyrCluClufleTyrLeufysAsnLysAspLeuAspAlaArgLeufhaleuAsp 261
                                                                                                                                                                                                                                                                                                                                                                                                             481 TTTGCACTCTTCAGCAAATTGGAAAGGAGAFGTGAAACTTATATATTTGACAACGAGC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541 ACTICGALATOTACTGAAATAAATTCTGCALIGGIGCTAAAAGTFICIIGGALCAGAJTT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         122 JoulouAlaiysClyGluVallouGlnMetGluAspAspLouVallleSerPheGlnLou 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              142 MetLeuCysValleuAspTyrPhelleLysLeuSerProProMetLeuLeuLysGluPro 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  162 TyrLysThrAlaVal11ePrc11eAsaGlySerProArqThrProArqArqGlyGlnAsh 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   182 ArqserAlaArqileAlalysGlmLeuGlmAshAspthrArqileiledlmValleufys 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                22 TrpGlylleCysllePhelleAlaAlaValAspieuAspSluMetSerPhelhrPheThr 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62 AspThrSerThrigsValAspAsnAlaMetSerArghenhentystysTyrAspValhen 81
                                                                                                                                                                                                                                                                                                                                                                           2 ClanysValSerSerValAspClyValLeuGlyClyTyTlleClanysGstysClattem 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122 PheMetAsmSerLeadlyLeaValThrSerAsmdlyLeuFrodlaValGluAddowSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             848
                                                                                                                                                                                                                                                                                                                                         US-09-026-459A-33 (1-851) x US-09-469 522 50 (1-4554)
                                                                                                                                                                                                                                                          Conservative:
                                                                                                                                                                                                                                                                          Mismatches:
                                                                                                                                                                                                                                        Matches:
                                                                                                                                                                                                                                                                                          Indels:
                                                                                                                                                     SEQUENCE DESCRIPTION: SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                              Gaps:
                                  LENGIH: 3554 base pairs
                                                TYPE: nucleic acid
STRANDEDNESS: single
INFORMATION FOR SEQ ID NO: 50:
SEQUENCE CHARACTERISTICS:
                                                                                                                                     7...2790
                                                                                                                                                                                                                                        4357.00
                                                                                                                                                                                                                                                            888°55
                                                                                    TOPOLOGY: linear
                                                                                                                                                                                                                                                                                       99.668
                                                                                                                   NAME/KEY: CDS
                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                 Percent Similarity:
Hest Local Similarity:
                                                                                                                                                                                                       Aliqnment Scores:
                                                                                                   FEATURE
                                                                                                                                                                       US-09-469 522-50
                                                                                                                                                                                                                                                                                          Query Match:
                                                                                                                                                                                                                         ..
ON
                                                                                                                                                                                                                                        Score:
                                                                                                                                                                                                                                                                                                                                                                               ٥
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ă
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>ج</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \ddot{c}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                             qd ··
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
```

```
1141 ATGAACACTATCCAACAATTAATGATTTTAAATTCAGCAAGTGATCAACCTTCAGAA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            251 GEGAAAGATATAGGATACATCTTTAAAGAAAATTGCTAAAGCTGTGGGACAGGTTGT 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321 GICGAAATIGGATCACAAACATACAAGITGGAGITGGCITGIATTAGGGAGIAATGGAA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1441 GACAACATITTTGATAIGTCTTTATTGGCGTGCGTCTTGAGGTIGTAATGGCCACATAT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                [30] AGGAGAAGIACATCICAGAATCIIGAAITCIGGAACAGAITGICITICCCAIGGAITCIG 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1621 GAAGGGAACTTGACAAGAAAATGATAAAACATTTAGAACGATGTGAACATCGAATCATG 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TABLE GAATGOOTTGCCATGCCTCTCACATTCACCTTTATTTGATCTTATTAAACAATCAAAGGAC 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HELLER FERNING TO THE FEBRUARY AND THE FEBRUARY OF THE FEBRUAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      921 3A3AAGEGATTGAAALCTACTECTETEAGEGTTTTFTAAAAAAGEGTAGGGTAGGG 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1981 TAFCTCCGGGCTAAATACACTTTGTGAACGCCTTGTGTCTGAACACACCAAAATTA4AAAAT 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                462 ValGlulleGlySerClrArgTyrLySt.cuClyValArg.cuTyrTyrArgValMetGlu 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AsplewIleSerTyrPheAspAspAspCysThrValAspProLysGluSerIleLeuLysArg 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              42 VallysAspile@lyTyrilePhelys@lwLysPheAlaLysAlaVal@ly@lr@lyGys 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            422 SerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrplleLeu 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          542 FhrThrangValAsnSerThralaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThr 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 '62 GluLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArgLeuAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ty: LeurarqLeuranIhrLeuCysGluarqLeuLeuserGluHisProGluLeuGluHis 601
262 HisAspLysThrLeuGlnThrAspSerIleAspSerPheGluThrGlnArgThrProArg 281
                                                                                                                                                                                                                                                                                                                       282 LysserAsnLeuAspGluGluValAsnValIleProProHisThrProValArqThrVal 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     482 SerMetLeuLysSerGluGluGluArqLeuSerIleGlnAsnPheSerLysLeuLeuAsn 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AspAsullePheHisMet.SerLeuLeuAlaCysAlaLeuGluValValWalmetAlaThrTyr 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    442 AssVallesAssilesilysAlaPheAspPheTyrLysVallleGluSerPheIleLysAla 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           462 GluglyAsmLeuThrArgGluMetIleLysHisLeuGluArgCysGluHisArgIleMet 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           422 AsoHisThrAlaAlaAspMetTyrLeuSerProValArqSerProLysLysCysCyser 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 192 TelletrpThileuPheClnHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArg 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           482 (1987). Genalatrpi. Genas generation en Pheas pieuri et ys Ginser (1988). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). (1987). 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COZ AradludlyProThrAspHisTendluSerAlaCysProLeuAsnLeuProLeuGlnAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .<u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \frac{1}{1}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
```

```
2101 CAPPTOGRACIARATTATGATGTTCCATGTATGCCATATGCAAAGTGAAGAATATAGAG 2160
                                                                                                                                                                                                  2221 TTCAAACGEGETETGATCAAAGAAGAGGAGTATGAFTCTAFTATAGFALTGTAFAAGEG 2280
                                                                          2401 ATTICCTGGAGGAACATCTATATTTCACCCTGAAGAGTCCATATAAAALLTCAGAAGGT 246U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2641 ATTGAAGGATCAGATGAAGGAAGTAAAGTAAAGATGTGGGAGGAGAGTGCGAAATTTCAG 2700
662 Phelysargvalleuffelyschuchurgraspschleile.Valhhefynashser 68:
                                                                                                                                                                                                                                         682 ValPheMetGlnArgLeuLysThrAsnIleLewGlnTyrAlaSerThrArgProProThr 701
                                                                                                                                                                                                                                                                                                                     702 LeuSerProlleProHislleProArqSerProTyrLysPheProSerSerProLeuArg 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     782 LoutysArgScrAlaCluClyScrAssProProtysProLoutysLysLouArgPheAsp 801
                                                                                                                                                                                                                                                                                                                                          2521 TICGGGACTICTGAGAAGTICCAGAAATAAATCAGATGGTATGTAACAGGGACCGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               762 PheClyThrSerGlutySPheClnLySllcAsnClnMctValCysAsnSerAspArqVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWAPE: Datentin Release #1.9, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               842 SerMetAspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 34, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. Box 4433 CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AFFLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shi-xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :IP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Patent No. US20020151461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ET,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STAIE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -09-469-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6
```

```
81 LeufheAlaLeuPheSerfysfeudluArqThrCysGluLeuIleTyrLeuThrGlnPro 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 PhetenLeuAlaLysGlyGluValLeuGlnMetGluAspAspLeuValIleSerPheGln 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               141 LeuMetLeuCysValLeuAspTyrPheIleLysLeuSerProProMetLeuLeuLysGlu 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161 ProtyrtysthralaValileProfleAsnGlySerProArgThrProArgArgGlyGln 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 AsuArgSerAlaArgIleAlaLysGluLeuGluAsnAspThrArgIleIleGluValLeu 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   490 AACAGAGTGCACGGATAGCAAAACAACTGAAAATGATACAAAATTATTGAAGTTCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     190 TEGETTGGACTCTTGAGGAAATTGGAAAGGACATGTGAAGTTATATATTTGACACAACCC 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70 ACTGAGGTACAGAAAAAAATAAAATCAGTGCAIAAATTGTTTAAGITACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41 Threllulendint/ysAsnileGluilleSerValHistysPhePheAsnicul.eul.ysGlu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21 LeutrpGlyIleCysIlePhelleAlaAlaValAspLeuAspGluMetSerPheThrPhe 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 HeASPTHESerThillysValASpAsnAlaMetSerArgLeuLeuLysLysTyrASpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US UP UZ6 459A 33 (1-851) x US-U9-469-522-34 (1-3266)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative:
Mismatches:
                                                                                                                                                     NAME: HILLE, DAVIS W.
REDISTRATION NUMBER: 41,071
REFERENCEZOWYEST NUMBER: 01XC:506
HELETOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches:
APPLICATION NUMBER: US,735,465,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lengt h:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOTALLON: 7..2502
SEQUENCE DESCRIPTION: SEQ TO NO. 34;
                                                                                         APPLICATION NUMBER: 09/026,459
                   FILING DATE: 22 Dec-1999
(LASSIFICATION: * URKNOWD)
                                                                                                                                                                                                                                                   TELEPHONE: $12/418 5000
TELEFAX: $12/424 7577
                                                                                                                                                                                                                                                                                                                                            CENCIH: 3266 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                              FILING DATE: * ORKHOWD> ALTORNEY ZAGENT INFORMATION:
                                                                                                                                                                                                                                                                                                 INPORMATION FOR SEQ ID NOT 34:
                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4273,00
                                                                                                                                                                                                                                                                                                                                                                                                                     PoPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Aliquitent Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US 0.9 469 5.22 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
```

5 3 Ē ŝ

5 ŝ 5 - â

3 3

3 3 -1 3

```
270 CTGAATGTGGTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTATCAAA 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          970 AGAĞITGAAGGATATGGATACATCITI AAAGAGAATITLÜCI AAAGILGI GÖGALADQI 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1090 GAATCCAIGCTIAAAICAGAAGAAGAAGGAITAICCAITGAAAAIITIAGCAAACTICIG 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    880
                           440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  381 GluSerMetLeuiysSerGluGluGluArgLeuSerlleGlnAshPheSerlysLeuLeu 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 TyrserArgserThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrplle 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 441 LeuAsnValLeuAsnLeuLysAlaPheAspPhelyTLysValLLeGLuserPhelleLys 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             461 AlaGluGlyAsnLeuThrArgGluMetileLySHiSLeuGluAraCySGluBlSArqlle 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            521 AshAshHisThrAlaAlaAspMetTyrLeuSerProValArqSerProDysLysLystNy 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541 SerThrThrArqValAsnSerThrAlaAsnAlaGluThrGluAlaThrSerAlaPhedlu 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  561 ThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArqLeu 580
                                                                                                     261 AspHisAspLysThrLeuGlnThrAspSerlleAspSerPheGluThrGlnArqthaPro 280
                                                                                                                                                                                                            28] ArqLysSerAsnLeuAspGluGluValAsnVallleProProHisThrProValArq3hr 300
                                                                                                                                                                              730 GATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAAAACA 789
550 TGTAAAGAACAIGAAIGIAAIAIAIAGAGGTGAAAAATGTTTATTTCAAAAATTTTATA 609
                                                                                                                                                                                                                                                                                     241 SertysArqTyrGluGlufleTyrLeutysAshLysAspLeuAspAluA;ubouPholooi
                                                                                                                                                                                                                                                                                                                                  321 CluAsnieulleSerlyrPheAsnAsnCysThrValAsnProLysGluSerlleteatys
                                                                                                                                                                                                                                                                                                                                                                481 MetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeufleLysGluSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 CysValGlufleGlySerGlnArqTyrLysLeuGlyValArqLeuTyrTyrArqValMet
                                                                                                                                                                                                                                                                       301 ValMetAsnThrileGinGinLeuMetMet.HeLeuAsnSerAlaSerAspGinProSer
                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                         9
                                                                                                                   <u>a</u>
                                                                                                                                                  ć
                                                                                                                                                                             윱
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                       े
                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
```

```
721 Argilop (2)/23/, Askilop (1988) (k. 2) kielps Sarfougrigs (k. 2) (1987) (k. 2) (k.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8rl Aspilediuslyseraspilualaaspslyseitysiisieuproslysisseityspe 820
FELLIIIIIIIIIIIIIIIIIIII
23su salaitaaagarcaansaassasatsaastaaasarttionse
                                                                                 HITTELLE HELLE HEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGGALTTGGAPCAATTATGATGTGTTPCATGTATGAGAAGTGAAGAATTA TB69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    f0] HisllelleTrpThTLcuPhcGlnHisThTLcuGlnAsnGluTyrCluLcuMctArgAsp 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            741 StylenProThrEproThrLysMetThrFroArgSerArgIleLeuValSerIleGlyGlu 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      821 SinGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsn 840
's: AlalytleuArgleuAsnThrLeuCysGluArgleuLeuSerGluHisProGluLeuGlu 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          *61 ThrebetysArqValLeulletysCluGluffuTyrAspSerifetTevalPheTyrAsn 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LILLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      217 3 BARAGA BAGA FACTICAAACAAGAAGAAAA 2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841 AspSerMetAspThrSerAshLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Armold, While & Durker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-469 (22-48
Sequence 38, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Xw. Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SPOTTENCES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Perton No. USZDOJ
Perton No. USZDOJ
Perebal INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KESTLT 9
US 09-369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
```

```
151 LysLeuSerProProMetLeuLeuLysStuproTytLysThrAlaVallleProIleAsn 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            157 GTCCATAAATTCTTTAACTTACTAAAAGAAATTGATACCAGGAAAGTTGATAATGCT 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91 ThrCysGluLeuIleTyrLeuThrGlnProSerSerSerIleSerThrGluIleAsnSer 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    111 AlaLeuValLeufysValSerfrp11eThrPheLeuLeuAlaLysClyGluValLeuGln 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          131 MetGluAspAspLeuValIleSerPheGlnLeuMetLeuCysValLeuAspTyrPheIle 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17! Clyserproarg@brpreargargClyClnAshargSeralaargllealalysGlnLeu 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51 ValHisLysPhePheAsnLeuLysGlu1]eAspThrSerThrLysValAspAsnAla 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31 ValAspLeuAspGluMetSerPheThrPheThrGluLeuGlnLysAsnIleGluIleSer 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71 MetSerArgLeuLeuLysLysTyrAspValLeuPheAlaLeuPheSerLysLeuGluArg 90
                                                                                                                  SOFFWARF: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3323
821
0
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-026-459A-33 (1-85!) x US-09-469-522-38 (1 3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jonservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches:
                                                                                                                                                     APELICALE:N NUMBER, US,09,469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <URKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
                                                                               COMPUTER, IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION: 7..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps:
                                                                                                                                                                                                                               APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                              NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UT:
COUNTRY: USA
ZIP: 77210-4433
COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY disk
                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                            512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 3323 base pairs
                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE, nucleic acid
STRANDEDNESS: single
                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4217.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96.45%
                                                                             COMPUTER, IBM PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAMIL, REY: CDS
                                                                                                                                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-469-522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
```

3	517		576
5 3	19.1	GHASHASPABASPABASBALLOSDAVALLOOGYSLOHESCHOFYSASBALLOASPGLO FELFELLER FELFELLER FELFELLER FELFELLER FELFELLER FELFELLER FELFELLER GAAATGATGAAGAACATGATGAGAAGAACATGATGAGAAGAACATGATGAGAAGAACATGATGAGAAGAACATGATGAGATGATGAAGAAGAACATGATGAAGAAGAACATGATGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGA	210
ă <u>a</u>	211	21 ValtysassvaltyrPhetysassPhetleProPheMetassSerLessTyteuValthr 230 	230 696
5 3	2.81	SerAsndlyLeuProdluValGluAsnLeuSerLysArgtyrGluGluIleTyrLeuLys 	250 756
5 3	757	ASTLYSASPICUASPALAATGICUTheileuAsphisAspiysThricuGlifthraspSer 	270 816
5 3	271	IleAspSerPheGluThrGhnArgThrProArqLysSerAsnLeuAspGluGluValAsn 	290 876
55 25 26 27	291	VallieproproffisThrepovalargThrvalmetAsnThrileGlnGlnLeumet.Met. [	310 936
25	411		330
\$ 3 5	441	ThrvalAsnProLysGluSerfleLeuLySArqValLySAspIleGlyTyrllePheLyS 	350 1056
5 3	451 1057	GludysPheAlaLysAlaValGlyGlnGlyCysValGlufleGlySerGlnArqTyrLys 	370 ` 1116
5 3	47.1	LeadlyvalarqlealtyrtyragvalmetGlusermetlealtysserGluGludrig 	390 1176
5 3	191	Leuser Deglaasaphesertysteuteuasaasapasa Depleidsmetserteuteu 	410
5 3	411	AlacysAlaLeuGluValValWetAlaThrTyrSerArgSerThrSerGlnAsnLeuAsp 	430 1296
5 3	4.41	Serelythrasprenserbleprotepticueasnvallenasnrentssalabbassplittilitititilititititilitititilitititititilititilititititititititilit	450 1356
5 £	451	PheTyricysValifiedriserPheTleLysAladludiyAsnLeuThrArqGluMetLile 	470 1416
5 3	471	LysHisteroflanacysgluffishrafleMetGluserLeualaTrpLeuseraspser 	490 1476
5 4	1477	Protoble bear programmer by Statement by the control of the second by th	510 1536
5 <u>4</u>	511 15 <i>4</i> 7	SerAlaCysProLeuAsnLeuProLeuGinAsnAsnHisThrAlaAlaAspMetTyrLeu 	530 1596
ò	5.41	SerProValArqSerProLysLysLysGlySerThrThrArqValAsnSerThrAlaAsn	550

```
1837 CTGCAGAATGAGTATGAACTCATGAGAGAGAGATTTGAACCAAATTATGATGTGTTGC 1896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1957 TACAAGGATCTTCCTCATGCTGTTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAAG 2016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2137 AGCCTTACAAGTTTCCTAGTCACCCTTACGATTCCTAGAAGGAACATCTATATTTCA 2196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HELLILILILITELLILITELLILITELLILITELLILITELLILITELLILITELLILITELLILITELLILITELLI STR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2377 CCYCCYAAACCACTGAAAAAACTACOCTTYGATATYGAAGAYCAGATGAAGAAGAAGAAGAA 2436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1777 GGCCTTCTGTCTGAGGCCCCAGAATTAGAACATATCATCTGGACCTTTTCCAGGACACAC
                                                                                                                                                                                                                                                                                                                                                                                     2197 CCCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTGCGAACACAACAAAAAATGACTCCA 2256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2257 AGATCAAGAATCTTAGTATCAATTGGTGAATTGGGGACTTGTGAGAAGTTGGAAAAA 2316
1597 TCTCCTGTAAGAICTCCAAAGAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAAT 1656
                                                                                                                                                           1717 TCACTGTTTTATAAAAAGFGFATGGGCTAGCCTATCTCCGGCTAAATACACTTGLGAA 1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2017 GAGNANGATICTATTATAGTATTCTALAACHOOGICTTCANGCAGAGTOAAAAAAAA 2076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      791 ProProLysProLeuLysLysLeuArgPheAsplleGluGlySerAspGluAlaAspGly 810
                                                                                                                       591 ArgLeuLeuSerGluHisProGluLeuGluHisllelleTrpThrLeuPheGluHisPhr 610
                                                                                                                                                                                                                                                                                     611 LeuGluAsnGluTyrCluLeuMetArgAspArgHisLeuAspGluIleMetMetCysser 630
                                                                                                                                                                                                                                                                                                                                                               631 MetTyrGlyfleCystysValLysAsnileAspLenLysPhetysTleTleValThrAla 650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             691 IleLeuGlnTyrAlaSerThrArqProProThrLeuSerProlleProHis11eProArq 710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             711 SerProTyrtysPheProSerSerProLenArdHeProClyGlyAsuHeTyrHeSer 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       771 HeAsnGluMetValCysAsnSerAspArqValLeuLysArqSerAlaGluGlySerAsn 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     811 SerLysHisLeuProGlyGluSerLysPheGlnGlnLysLeuAlaGluMetThrSerThr 830
                                      551 AlaGluThrGlnAlaThrSerAlaPheGlnthrGlnLysProfeellysSerthrSerLen 570
                                                                                                                                                                                                                                                                                                                                                                                                                                                651 TyrtysAspteuProHisAlaValGlnGlnThrPhetysArqValLeufletysGlnGln 670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          731 ProleulysSerProTyrLys11eSerCluClyLeuProThrProThrLysMetThrPro 750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841 ArgThrArgMetGlnLysGlnLysMetAsnAspSerMetAsp1hrSetAsnLysGluGlu B50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24.37 AGYAAACATCTCCCAGGACACTCCAAATTTTCACCAGAAACTGGCAGAAAATGACTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 40, Application US/09469522
; Patent No. US20020151461A1
; GENERAL INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2557 AAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   851 Lys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
                                                                            2
                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ă
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                        ŝ
                                                                                                                       ŝ
                                                                                                                                                       3
                                                                                                                                                                                                    \frac{1}{2}
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
```

```
of ThreysellufoulleTyrLouThrelnProSerSerSerIleSerThrelnIleAsnSer 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                z el ellegadettagateagatetegtteactttacteagetacagaaaaacatagaaateagt 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                295 GTCCATAAATICTITAACTTACTAAAAGAAAITGATACCAGTACCAAAGTIGATAATGCT 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "1 Met SerAraLeuLeuLysLysTyrAspValLeuPheAlaLeuPheSerLysLeuGluArg 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 ValAspLeuAspGluMetSerPheThrPheThrGluLeuGlnLysAsnIleGluIleSer 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VaiHistgsPhePheAsnteuLeuLysGlufleAspThrSerThrLysValAspAsnAla 70
                   Zhou, Yunll
TILE of INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                  ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3461
821
                                                                                                                                                                                                                                                                                                                                  SCEIWARE: Patentin Release #1.0, Version #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-39 326 459A-33 (1-851) x 08-09-469-522-40 (1-3461)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Curscivative.
Mismatches:
                                                                                                                 ALDRESSEE, Arnold, White a Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                   "URRENT APPLICATION DATA:
APPLICATION NUMBER: HS 209 2469 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/TOCKET NUMBER: UTXC:506
IBLECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels:
                                                                                                                                                                                                                                                                                      OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 09/026.459
FILING DATE: «Unknown»
ATTORNEY_AGENT INFOMMATION
NAME: HIDDER, DAVIG W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCL DESCRIPTION: SPQ UD NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 41,071
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                             FILING DAIE: 22-Dec-1999
CLASSIFICATION: TERFOWER
                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGIH: 3461 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 40: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINK APPLICATION DATA:
                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2697
                                                                                                                                                                                                                                                 TIMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4217.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FoFoLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  96.45*
                                                                                                                                                                                                                         77210-4433
                                                                                Salah din das
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
C
                                                                                                                                                                   'llY: Houston
                                                                                                                                                                                                          USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAMEZKEY: CD
                                                                                                                                                                                    STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Cimilarity.
Best Local Similarity:
                                                                                                                                                                                                        2 UNIRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US OF 469 522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Luery Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>. . .</u>
```

```
1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1015 GTAATTCCTCCACACACTCCAGTTAGGACTGTTATGAACACTATCCAACAATTAATGATG 1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1255 CTTGGAGTTGGCTTGTATTACCGAGTAATGGAATCCATGCTTAAATCAGAAGAAGGACGA 1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1315 TTAICCAFICAAAAIIITAGCAACITCIGAAIGACAACAITITICAIA16101F1AIIG 1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1435 TCTGGAACAGATTTGTCTTTCCCATGGATTCTGAATGTGCTTAATTTAAAGCCTTTGAT 1494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1195 GAGAAALILGCIAAAGCIGIGGGACAGGGIIGIGIGGAAATIGGAICACAGGGATACAAA 1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      311 IleLeuAsnSerAlaSerAspGlnProSerGluAsnLeuIleSerTyrPheAsnAsnCys 330
                                                                                             [5] LyskeuSerfrofreMetheuLysSleitoTyrtysThrAlaVallleProlleAsn 170
                                                                                                                                                                                               171 ClySerProArgThrProArgArgClyClnAsnArgSerAlaArg1leAlaLysClnLeu 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27] []CASpSerPheGlaThrGInArgThrFrcArgTysSerAsmAspSluGlaValAsm 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           331 The ValAsoProLysCluSerlieLeut_TsArgValLysAspileClyryrilePhetys 350 \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        371 LeuGlyValArgLeuTyrTyrArqValMetGluSerMetLeuLysSerGluGluArq 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        391 LouScrileGinAsnPheSerLysLeuLouAsnAspAsnIlePheHisMetSerLeuLou 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        411 AlaCysAlaLeuGluValValWetAlaThrTyrSerArgSerThrSerGlnAsnLeuAsp 430
131 MetGluAspAspLeuValIleSerPheGlnLeuMetLeuCysValLeuAspTyrPheIle 150
                                              535 ATGGAAGATGATCTGGTGATTTCATTTCAGTTAATGCTATGTGTCTTGACTATTTTTATT 594
                                                                                                                                                                                                                                              655 GOTTCACCTOGRACACOCOACOGOTCAGAACAGGACTGCACGGATAGCAAAACAACTA 714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            231 St. Astrolytication (1974-1972) Astronomy (1974-1974) Chall (1974-1974) HILLIH AND GARTIGGAGAGAAAHHATCHAAA
                                                                                                                         351 GluiysPhoAlalysAlaValGlyGlnGlyCysValGluileGlySorGlnAvg7y777.ys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    211 VallysAsnVallyrPheLysAsnPhelleProPheMetAsnSerLeuGlyLeuValPhr
                                                                                                                                                                                                                                                                                                                                                                                                                                           77 GIGAAAAAISITIATITIAAAAAITITAIASSIIIIAIGAAITCICIIGGACIIGIAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              251 AsrlysAsplouAspAlaArqLeuFheLeuAspHisAspLysThrLeuGlnThrAspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        291 ValileProProHisThrProValArgThrValMetAsnThrileGinGinFeuMetMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          135 ACAGTGAATCTAAAAGAAAGTAIACIGAAAAGAGIGAAGGATATAGGATACATCITTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        431 SerClyThrAspLeuSerPheProTrpIleLeuAsnValLeuAsnLeuLysAlaPheAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ά
                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             aa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                               č×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            e.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           č
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

491 ProLeuPheAspLeuIleLysGlnSerLysAspArqGluGlyProThrAspHisLeuGlu 510

```
THEFTER HITTER H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        711 Settle by the prober of the control of the probe of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            THEFTELLITE TELEFORM AND A STANDARD A STANDARD AND A STANDARD AND A STANDARD AND A STANDARD A 
17.35 TOTOCTGTANATCTCCAAAAAAAAGTTCAACTTCAATTTCTACTGCAAAT 1794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             671 GLUTYLASPSOFT FELLOWIPPOTYTASBOFVA IPPOMET GLUAF GLOULYST FEAST 690 FELLI HELLI 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELETITER TELETITET TELETI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1915 COCCTTCTCTCTCACCCACCASAATIAGAACAIATCATCTGGAACCTTTTCCAGGACAC 1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2035 ATCHALGGCALA FGCAAAGTGAAGAATATAGAGCTTAAA FTCAAAATCATTGTAACAGCA 2094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FELLI HELLELLE HELLE HEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541 SerproValArdSerProLystystystysOySerThrardValAsnSerThrAlaasn 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2095 TACAAGGATCTTCCTCATGCTGTTCAGGAGAGATTCAAAGGTGTTTTGATCAAGGAGG 2154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74 ProbabysSerProlyttysHeSerGlaGlyteaProthrprothriysMetThrPro 750 Hillittillianina (1914)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2335 POPOTGARGACINGALIADAAALITICAGAAGTIGGGGAAGAAGAAAATGAGTGCA 2394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          511 SerAlaCysProLeuAsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeu 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              551 AladloThrGlnAlaThrSerAlaPheGlnThrGlnLysProLeoLysSerThrSerLeu 570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               591 ArqlantansordingisprodintandingistotloftpphrtanphoGingisthr 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     611 LeuchhAshChulyrGhulenMetArgAspArgHisLeuAspChilleMetMetCysSer 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   641 MetTyr0lylleCystysValtysAsnIleAspLoutysPheLysIleIleValThrAla 650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     651 TyrtysAspteuProHisAlaValGlnGluThrPhetysArgValLeuIleLysGluGlu 670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              691 IletaudInTyrAlaSerThrArqProProThrLeuSerProlleProHisIleProArg 710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7-1 ArgSerArgIleLeuValSerIleGlyGluSerPheGlyIhrSerGluLysPheGlnLys 770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  771 HeAsndluMetValCysAsnSerAspArgValLeutysArgSerAlaGluGlySerAsn 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    791 ProProLysProLentyStysLenArgPheAsplleGluGlySerAspGluAlaAspGly 810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           811 SertysflisLeuProGlyGluSerLysPheGlnGlnLysLeuAlaGluMetThrSerThr 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             831 ArgihrArgMetGinLysGinLysMetAsnAspSerMetAspThrSerAsnLysGluGlu 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      851 Lys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ę.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               î
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;-
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
```

```
36 MetserPheThrPheThrGluLeuGlnLysAsulleGluIleSetValHisLysPhePhe 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7 AIGTOGLICACHTHACHAGGLACAGAAAAACAHAGAAALGAGTOCATAAATTCTTT 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          56 AshleutentysChilleAspIhrSerThrtysValAspAshAlaMetSerArglædten 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 LysLysTyrAspValLeuPheAlaLeuFLeserLysLeuSlaAraTLaCysGluLeuIlle 95
                                                                                                                                                                                                                                   TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-026-459A-33 (1-851) x US-09 469-522-3 (1 4218)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches:
                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             104618:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ 1D NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: THM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRALLON NUMBER: 41,071
                                                                                                                                                                                    Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/INCRET NUMBER:
                                                                                 Sequence 3, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 3218 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: <Unknown.> ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: 512/418-500
TELEPHONE: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID No: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.00%
                                                                                                                                             APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4192.00
                                                                                                                                                                      Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95.88%
                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: C'DS
                                                                                                                                                                                                                                                                                                                                                                 CllY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                       ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                     STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Db 2695 AAA 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE
                                                            US-09-469-522-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-469-522:4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No.:
                                        RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
```

|--|

```
1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2166
                                      476 CysCluHisArgilcMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeu 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  536 ProLysLysLysClySerThrThrArgValAsnSerThrAlaAsnAlaGluThrGlnAla 555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         616 GluLeuMetArgAspArgHisLeuAspGlnIleMetMetCysSerMetTyrCly:leCys 635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           656 HisAlaValClnCluThrPheLysArgValLeuTleLysGluCluTyrAspSerIle 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           676 IleValPheTyrAsnSerValPheMetGlnArgLeuIysThrAsnileLeuGlnIyrAla 595
456 GluserPhelleLysAlaGluGlyAsnLeuThrArqGluMetIleLysHisLeuGluArq 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CysAsnSerAspArgValleuLysArgSerAlaCluClySerAsnProProLysProLeu 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 816 GlyGluSerLysPheGlnGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGln 835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           716 ProSerSerProLegarg HeProClyGlyAsn Defyr DeSerProLeglysSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1567 ACCTICAGCCTTCCAGAGCCAGAGCCATTGAAATCTACCTCTTTTCACTGTTTTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysValLysAssileAspLesLysPheLysTheIleValThrAlaTyrLysAspLesLro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1327 TGTGAACATCGAATCATGGAATCCTTGCATCTCTCAGATCCACCTTTAILTGATCTT
                                                                                                                                                                                                                                                                                              HelyschiysAspargGluGlyProThrAspHisLeuGluSerAlaCysProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                             516 AsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArqSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrSorAlaPheGlnThrGlnLysProLeuLysSerThrSorLeuSert.cuPheTyrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \texttt{LysValTyrArgLeuAlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluArgLeuArgLeuAeuGerGluArgLeuArgLeuAeuGerGluArgLeuArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeuGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuAeugGerGluArgLeuaeugGerGluArgLeuaeugGerGluArgLeuaeugGerGluArgLeuaeuggGerGluArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1807 AAAGTGAAGAATATAGACCTTAAATTCAAAATCATTGTAAGAGGATAGAAGGAFGLICCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        736 TyrtysileSerCleClyJeaProThrProThrLysMetThrProArgSerArg11cles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       756 ValSerIleGlyGluSerPheGlyThrSerGluLycPheGlnLysIleAsnGlnMetVal
                                                                                                                                                                                                                                                                                                  496
                                                                                                                                                                                                                                                                                                                                                                   100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40
                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ς
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      οÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ΟŸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οÿ
```

```
801 TGGGGAATCTTGTTGTTTGCAGCAGTTGACCTAGATGAGATGTCGTTCACTTTTACT 360
                                                                                                                                                                                                                                                        541 ACTTCGATG-----
                                                                                                                                                                                                                                                                                                                                                                                    549
                                                            q
                                                                                                                            a
                                                                                                                                                                                        a
                                                                                                                                                                                                                                                      ġ
                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                 Š
                                                                                                                                                           ò
                                                                                                                                                                                                                        ^{\circ}
                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                  ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \tilde{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó
             2 447 GGAGAGT CCANATITICAGCAGAAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAA 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 GAGAAAG ETTGATG1G EGGA LGGAGTAT1 GGGARG ETA FAFE GAAAAAGAAAAGGAAGFG - 3 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 ChubysValSerValAspGlyValLeuGlyGlyTyrIleClcLysLysChuLeu 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Trp31y11ev'ys11ePhe11eAlaAlaValAspLeuAspGluMet.SerPheThrPheThr 41
 TILE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                            836 LyselluLysMetAshAspSetMetAsp1htSetAshLyselluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFIWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.47.7
7.89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US 09 026 459A:33 (1 851) x US 09-469-522-46 (1:3377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative.
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches:
                                                                                                                                                                                                                                                                                                                    Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: 7..2613
SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41,071
                                                                                                                                                                                                                 Benedict, William F.
Zhou, Yubli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: UTELECOMMUNICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           - umotalita
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILLING DATE: 22-Dec-1999
CLASSIPICATION: PERROWN
                                                                                                                                      Sequence 46, Application US/09469522
Fatent No. USZUGZU151461Al
GENERAL INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGIH: 4377 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         512/418-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: «Unknown»
ALLORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                   HOX 44 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDFLANFSS single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *URRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMALLON FOR SECTION NOT 46: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acid
                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                      APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4024.50
                                                                                                                                                                                                         на, Shi хие
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92.94%
92.82%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             850.26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lopology: linear
                                                                                                                                                                                                                                                                                    NUMBER OF SECHENCES:
                                                                                                                                                                                                                                                                                                                                                                                                 21P: 77210 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: ODS
                                                                                                                                                                                                                                                                                                                                               'TIY: Houston
                                                                                                                                                                                                                                                                                                                                   STREET: P.O.
                                                                                                                                                                                                                                                                                                                                                                                  CHINTRY: USA
                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                   ίX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Allqument Scores:
                                                                                                                        UF 459 522:46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09 469 522 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oursty Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
```

```
1144 GTCGAAATTGGATCACAGCGATACAAACTTGGAGTTCGCTTGTATTACTGGATAGGAA 1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1084 GTGAAGGATATAGGATACATCTFFAAGAGAATTTGGTAAAGGTGTGGGAGAGTGTTGT 1143
                                                                                                      661 GAGCTACAGAAAAACAIAGAAAICAGTGTGCATAAATTTITTAACTTACTAAAAAAAATT 420
                                                                                                                                                                                                                    82 PhcAlaLcuPhcScrLysLcuGluArqThrCysGluLcuTleTyrLcuThrGluhroScr 101
                                                                                                                                                                                                                                                                                                                              102 SerSerlleSerfbrGluffeAsnSerAlaLeuValLeuLysValSerftpflfefbrehe 121
                                                                                                                                                                                                                                                                                                                                                                                                                                    122 LeuLeuAlatysGlyGluValLeuGlnMetGluAspAspLeuVallleSerPheGlnLeu 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             142 MetleuCysValleuAsplyrPhelletysLeuSerProProMetleuLeutysGluPro 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            550 ....-Gröderett Al Accentraal og i i dang i ogagagagagagagaga eu s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  182 ArgSerAlaArgIleAlaLysGlnLeuGluAsbAspThrArgIleIleGluValLeuCys 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              664 AAAGAACATGAATGTAATATATAGATGAGGTGAAAAATGTTTATTFCAAAAATTTTATACCT 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    222 PheMetAsnSerLeuGlyLeuValThrSerAsnGlyLeuProGluValGluAsnLeußer 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                784 AAACGATACGAAGAAATITALCITAAAAATAAAGALCIAGATCCAAGATTALTITIGGAT 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         282 tysSerAsnicuAspGinGlaValAsnVallTeProProHistbrPreValArqTbrVal 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     302 MetAsuThrIleGluGlnLeuMetMetIleLeuAsnSerAldSerAspGluFroSerGlu 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 322 Asmicul LeSerTyrtPicAsnAsnCysThrValAsnFrdysGluSerTFeLeurysArg 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        342 VallysAspileClyfyrilePhelysGlutysPheAlatysAlaVa.GlyGluGly/ys 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 362 ValGluileGlySerGlnArqTyrLysLeuGlyValArqLeuTyrTyrArqValMetGlu 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             382 SerMetLeulysSerGluGluGluArqLeuSerTleGlnAsnPheSerLysLeuLeuAsn 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      162 TyrtysPhrAlaVallleProlleAsnGlySerProArqthrProArqArqClydInAsn 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   262 HisasplysThrLouGinThraspScrileaspScribeGinthrGinardthrEnard 281
```

	· · ·			
402 AspasniePheHisMetScriculeDalaCysAlaLeuGluvalValMetAlaThFTY 421 [[]][][][][][][][][][][][][][][][][][]	482 GLUSCHLEUATATEUUSCHASPSCHPFOLGUPHEASPLEULTGLUSGENSCHLYSASP 501 HILLITHITHITHITHITHITHITHITHITHITHITHITHITHI	262 GIRLYSPROLEULYSSETThrSerLeuserLeubhetyrLysLysValtyrArgleuala 581 11111111111111111111111111111111111	642   1691, ys. Phelys. Hellevalthrals. fyrlysasplouprofisalavalding setting   661	7.02 EURSCHPFUHERUNG FILGER AND EGERFLOTYTISTSPRICHTUNGET SCHRIJLIGHEN TOT TELLER HILLIGHEN THE FILLIGHEN THE FILL
29 dg	5 6 5 6 5 6 5 6			2

```
2524 CAGAAACIGGCAGAAAIGACICIACIGAACACGAACAGAAAGCAAAAAGCAGAAAATGAT 2583
                                                                                                                                                                                                                          P22 Ciniys) euAluGluMciThiSerThrArgTbrArgMctCiniysCluiysMctAsnAsp 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hu, Shi'Xue
Benedict, William F.
Zhou, Yunii
TITLE OF INVENTION: MODIFIED RELINOHIASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
REFERENCE/POCKET NUMBER: UIXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE, Arnold, White & Durkee
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/US/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
                                                                                                                                                                                                                                                                                                                         2584 AGCATGGATACCTCAAACAAGGAGAGAGAAA 2613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
LOCATION: 7.2619
SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                 842 SerMetAspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                            // Sequence 48, Application US/09469522
// Patent No. US20020151461A1
// GENDERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 3383 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INEL nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                       RESULT 13
US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No.:
                                                                                                                                                                                                                                                               a
                                                                                                                                                                                   Š
                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                 ő
```

	1,21,	. 459A 33 (1 851) X US 09-469-522 48 (1-3383) 2 01010/SValSetSetSetSetSetSetValAseGlvClv(ValvalVVI)	
4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		0.10128Va188F38F38F67V45A8F67F0F07F0F1V61VF0VF0VF0VF0VF0VF0VF0VF0VF0VF0VF0VF0VF0V	
20	241		21
2	2.2	TEPSTYLECYSTICPLETER LA A LA SPICUA SPOTUMET SETPLET PLETER THE THE THE THE THE THE THE THE THE TRACE TO SEA A POSSA A FOR A SA SA SETT A CAN A SA A FOR A SA S	41
5 2	4.2	2.1	61 420
5 5	421	A SEPTION SETTING SYNTANDAR AS PASINALAMET SETAIT GLOULEULY STATAS PVALLE THE PROPERTY OF THE	81 480
5 3	4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Peratatzabhesertystzadharqthréysdatantletyttenhidhetrese EFELTITITITITITITITITITITITITITITITITITITI	101 540
5 ±	102	Sersor (LoserThrd) of DeanserAlaLouValLouLysValSerTrp[]   FTH	121
40 40	122	LesdesuAlatysolycluVallesuclaMetchuAspAsplesuVallteSerPheGlnLe 	141
	142	MetteudysvaltenaspiyrPhetLebysteuSerProProMetteuteutunysGlubr 1117   Hillillillillillillillillillillillillill	161 720
5 5	162	PyttysThrAlaValIleProlleAsnGlySerProArqThrProArqArqGlyGlnAs            AlAAAACA	181
۲۷	182	2. ArqSerAlaArq11eAlat;ySG1nLeuGluASnAspThrArg11e11eG1uVa1LeuCy	201
( <b>1</b> :1)	7 45		735
45	202	2 TysGluHisGluCysAsnileAspGluValTysAsnValTyrPhcLysAsnPhcilePr	221 735
5 3	222	2. PheWet As a Set Lead Lytea Val Thr Set As a Gly Leaprod, a Val Glu As a Lease by Set and Color and Color and Advance And Good and Advance and Color and C	24.1 789
8 G	242	FERRALD FOR BOTH HER STRONG SASPICORS PAID BATCH HELLE BASE FOR BA	261 849
5 g	24.2	PHESASPASIBLE COURTED ASPSOTTE OASPSOTPHOUTHILLIEFFER BETTELLE THE PER BETTELLE FOR THE PER BETTELLE FOR THE PER BETTELLE FOR THE PER BANGARA TAGATA AND AND AND AND AND AND AND AND AND AN	281 909
5 A	910	<ul> <li>Lysserasuledaspolugluvalasuvaliletrotroffisthrerovalargthrva</li> <li>HTTLLFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF</li></ul>	301 969
§ 3	40.2 97.0	<ul> <li>MetAsnihritedindidicumet MetiteleuAsnSerAlaSerAspdinProSerGI HITTHITHITHITHITHITHITHITHITH</li> <li>Algandactategaacattaalgatgattitaaattegagagagatgaacettegaa</li> </ul>	321 1029
7.0	175	Z. ASDLONITOSOT IVEDIOASDASDASSIN VALASDEOLYSCIDSOT I CLOULYSARG	341

```
1270 GACAACAFTFFCAFATGTCTTTATTGGCGTGCGCTCTTGAGGTTGTAATGGCCACATAT 1329
                                                                                                                                                                                                                                                                                                               1330 AGCAGAAGIACATCICAGAAICIIGAIICIGGAACAGAIIIGICIIIICCCAIGGAIICTG 1389
                                                                                                                                                                                                                                                                                                                                                                 2110 GTCFTCATGCAGAGAGTGAAAAAAAATTTTGCAGTATGTTTTCACCAGAGGCCCCTAGC 2169
1030 AATCEGALTEGETALTELAACAACEGCACAGEGAATGCAAAAGAAAGTALACEGAAAAGA 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                             1450 GAAGGCAACTTGACAAGAAATGATAAAAAATTTAGAAAGGATGTGAACATGAATTATT 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1690 ACTACGCGTGTAAATTCTACTGCAAATGCAGAGCAACAACCTCAGCCTTCCAGACC 1749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2050 ITCAAACGIGITITGAICAAAGAAGAGAGIAIGAITGIAITAIATATITTTAIAACICG 2109
                                                                                                                                                        SerMetLeuLysSerGluGluGluArqLeuSerIleGluAsnPheSerLysLeuLeuAsn 401
                                                                                                                                                                                                                    402 AspAsnIlePheBisMetSerLeuLeuAlatysAlaLeutluValValMetAlaThrTyr 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        362 ValGluffeClySerCinArgTyrtysteeGlyValArgAculyrtyrArgValMetGlu 381
                                                                                                                                                                                                                                                                                 SerArqSerThrSerClnAsnLeuAspSerGlyThrAspLeuSerTheProTrp11eLeu 441
                                                                                                                                                                                                                                                                                                                                                442 AsnValLeuAsnLeuLysAlaPheAspPheTyrLysVallleGluSerPheTleLysAla 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               562 GlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArqLeuAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            582 TyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGluHis 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 662 PhotysArgValLeutletysGluGluGluGluHyrAspSerffelleValPhetyrAshSer 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               682 ValPheMetGlnArqLeuLysThrAsnIleLeuGlnTyrAlaSerThrArqProProThr 701
                            462 GluGlyAssLeuThrArgGluMetIleLysHisLeuGluArgCysGluHisArg1leMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             482 GluSerLeuAlaTrpLeuSerAspSerProteuPheAspLeuTletyschusertysAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        502 ArgGluGlyProThrAspHisLeuGluSerAlaCysFroLeuAsnLeuFroLeuGlnAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 542 ThrThrArgValAsnSerThrAlaAsnAlaGluThrClnAlaThrSerAlaPheGln1hr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    642 LeuLysPheLysIleIleValThrAlaTyrLysAspLeuProHisAlaValGlnGluThr
                                                                                                                                                                                                                                                                                                   385
                                                                                                                                                                                 9
                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                              <del>2</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                         ò
                                                                                                                    a
                                                                                                                                                      ò
                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           _{\Sigma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
```

```
2173 TIGIGAGRAFACTICATION TIGIGAGRACT TAGAGRATICA TAGAGRACT TO TAGAGRAFACT TAGAGGRAFACT TAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            229) CTGCCAACACCAACAAAATGACTCCAAGATCAAGAACTTAAGAGATGAGAGATGAGAGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 742 i.euProThrProThrLysMetThrProArgSerArgIlcLeuValSerIleGlyGluSer 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                822 GlnLysLeuAlaGluMetThrSerThrArqThrArqMetGlnLysGlnLysMetAsnAsp 841
                                                                                                                                                                                                          72: IleProdlydlyAsnIleTyrIleSerProLeuIysSerProTyrIysIleSerGluGly 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          782 LeuLysArdSerAlaGluGlySerAsnProProLysProLeuLysLysLeuArgPheAsp 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     802 [1] CCLUTTYSerAspCLaA (aAspC) ySerLySHisLeaPreClyCluSerLySPheCln | 821
202 LeusarProllaBroHlatlaBroArqSerProTyrLyaPhaProderSarBritalArq 723
                                                                                                                                                                                                                                                                 TITLE OF INVENTION: MODIFIED RETINGBLASTOMA TOWOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2550 AGCAIGGATACCICAAACAAGAAGAAAA 2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     842 SerMetAspThrSerAsnLysGluGluLys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hu, Shi·Xuc
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 22-Dec-1999
CLASSIFICATION: TERBOWES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   O MEUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 46, Application US/09469522
Patent No. UR20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   < Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY ZACENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1ELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "PRRENT APPLICATION DAFA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFERMATION FOR SEG ID NO: 36:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANI: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CIIY: Hoaston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DALE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dent Mo. URDPODOIST46
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           38-09-469 522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \hat{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
```

```
131 MetGluAspAspLeuValIILeSerPheGinLeuMetLeuCysValLeuAspTyrPheIILe 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                91 ThroysGluLeuIleTyrLeuThrGlnProSerSerSerIleSerThrGluIleAsnSer 110
                                                                                                                                                                                                                                                                                                                                                                                                                                            67 ACATIGTIGAACTITATIATIATITIGACACACCAGCAGTITICGATIATICTACTIGAAATAAATTICT 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              111 AlakouValkeutysValSerTrpileThrPhekeuAlakysClyCluValkeuCin 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               127 GCATTGGTGTTAAAAGIITGTTGGATCACATTTITATTAGCTAAAGGGGGAAGTAITAGAA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23) SorasnGlytenPreGlyValGluAsnleuSertysArgTyrGluGlutleTyrtLeutys 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             547 AALAAAGATCTAGATGCAAGATTATTTITGGATCATGATAAAACTCTTCAGACTGATICL 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                271 IleAspSerPheGluThrGluArgThrProArgLysSerAspLeuAspGluGluValAsp 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  291 VallieptoprodisThrprovalArgibrvalMetAshThrileGinGinLeumetMet. (10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  311 HeLeuAsnSerAlaSerAspGlnProSerGlaAsnLealleSerTyrPheAsnAsnCys +30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HTTTTTAAATTEAGGAAGTGAAGCTTCAGAAATEEGATTICCTATTTTAACAACTG 786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   331 ThrValAsnProLysGluSerIleLeuLysArqValLysAspIleGlyTyrIlePheLys 450
                                                                                                                                                                                                                                                                                                                                        247 AAACTCTCACCTCCCATGTTGCTCAAAGAACCATATAAAACAGCTGTTATACCGATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        211 VallysAssValTyrPbelysAssPhelleProFbeMetAssSerLeuGlyLeuValThr
                                                                                                                                                                                                                                                                                                        US-09-026 459A·33 (1:851) x US-09-469-522-36 (1-3113)
                                                                                                                                                                                                                         Conservation.
                                                                                                                                                                                                                                       Mismatches:
                                                                                                                                                                                      Length:
Matches:
                                                                                                                                                                                                                                                         indels:
                                                                                                  LOCATION: 7..2349
SEQUENCE DESCRIPTION: SEQ ID NO: 36:
LENGIH: 3113 base pairs
                IYPE, nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                         100.00%
100.00%
                                                                                                                                                                                                       4017.00
                                                    FOPOLOCY: linear
                                                                                                                                                                                                                                                       91.88%
                                                                                    NAME, TEY:
                                                                                                                                                                                                                                       Hest Local Similarity:
                                                                                                                                                                                                                         Persent Similarity.
                                                                                                                                                                      Alignment Scores:
                                                                    FFATURE
                                                                                                                                    US-09-469-522-36
                                                                                                                                                                                                                                                       Query Match:
                                                                                                                                                                                                        Score:
                                                                                                                                                                                                                                                                                                                                                                          qu ;
                                                                                                                                                                                                                                                                                                                                           οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ÃΟ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   끮
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ã
```

Tue Jan 21 10:03:04 2003

ع	o c o	o'	. و و ع	ع ب د ب
846 370 906 390 966 410	430 1086 450 1146 470 1206	1266 510 1326 530 1386 550	570 1506 590 1566 610	630 1686 650 1746 670 1806 690 1866
der	ALACYSATALA-GIUVATVAIMOTALATHITTITTITTITTITTITTITTITTITTITTITTITTIT		A a d Luthi G LuA la Thi Ser A la PheG Inthr G Intysproteutys Ser Thr Ser Leu Graiadae Ander Thi Hillithill Hillithill Hillithill Graiadae Ander Ander The Ander The Ander The Corte Thi Ser Leu Phe Fyritys Lyssys Vality and Leu Andre Thi Hillithill Grace Corte Grace Ander Corte Grace Corte Grace Ander Corte Grace	LevicheAsucclufyrdchuleumetAsqAspArgHistlenaspGlintemetMetCysser CTGCAGAATGAGTAGAGAGAGAGAGTTGGAGCAAAITATGAGGGTTCC TGCAGAATGAGTAGAGAGAGAGAGATTGGAGCAAAITATGAGGGTCCC MettyrGtytteystysvaltysasniteaspleauysphetystleitevalthrala Lillittilli
787 451 847 871 907 631	411 1027 431 1087 451 1147	1207 491 1267 511 1327 531 1387	551 1447 571 1507 591	611 1627 641 1687 651 1747 671 1807
4 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	A 4 A 4 A 5		6 4 6 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	\$ q \$ q \$ \$ 4 \$ 5 \$ 5 \$ 5 \$ 5 \$ 5 \$ 5 \$ 5 \$ 5 \$

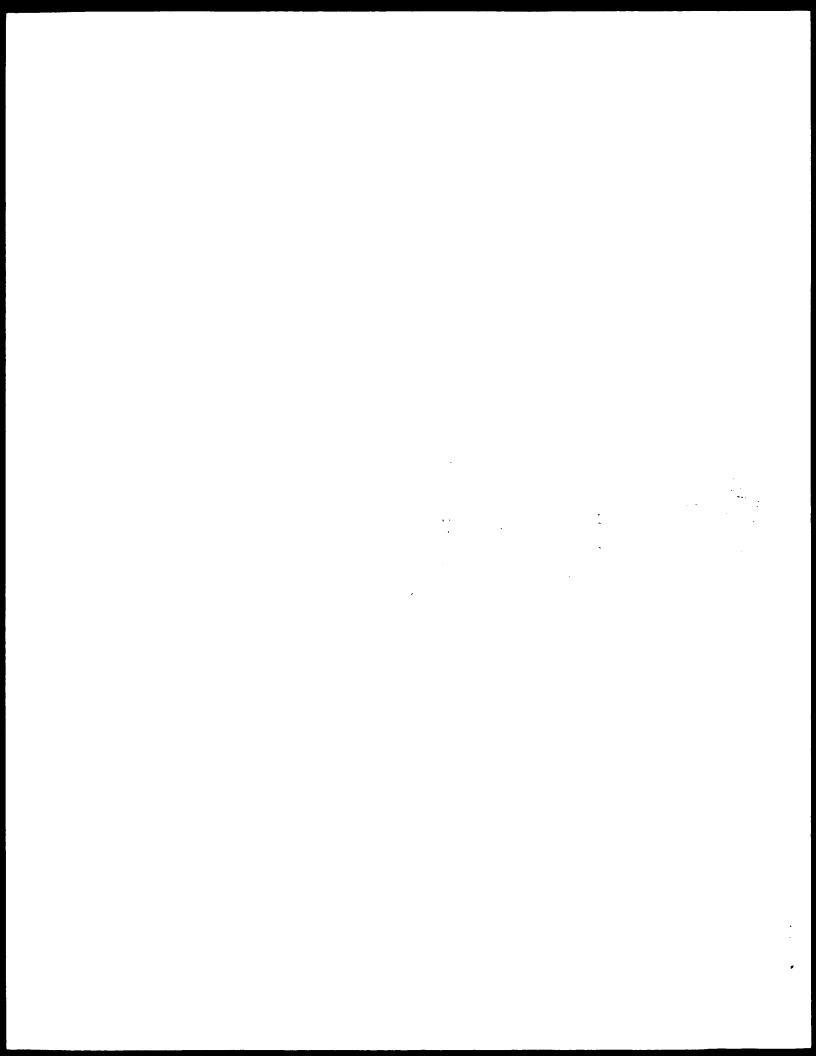
```
2047 AGATCAAGAATCTTAGTATGAATTGCTGAATCATTGGGGATTTGTGAGAAGTTGGAGAAA 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2227 ACTAAACATCTCCCCACCACAGTCCAAATTTCAGCAGAAACTGGAAALGAGTTGTTATT 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         711 SerProTyrLysPheProSerSerProLeaArq11eProGlySlyAsm11eTyrI1eSer 740
                                                                                                                                                                                                                                                                                                                                                                                                                                       751 ArgSerArglleLeuValserlledlyGluserPheGlyThrserGluLysPheGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 771 IleAsnGlnMetValCysAsnSerAspArqValLeuLysArqSerAlaGluGlySerAsn 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     811 SerLysHisLeuProGlyGluSerLysPheClnGlnLysLeuAlaGluMetThrSerThr 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           831 ArgThrArgMetGlnLysGlnLysMetAsnAspSerMetAspThrSerAsnLysGluGlu 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
FILLING DATE: 22-Dec-1999
CLASSIFICATION: <unitarity control of the control of th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IHM PC COMPATIBLE OPERATING SYSTEM: PC-DGS/MS-DGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: <Unknown>
ATTORNIX-AGENT INFORMATION:
NAME: Hibler, bavid W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 42:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. US20020151461A1
GENERAL INFORMATION:
APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2347 AAA 2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         851 Lys 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-469-522-42
; Sequence 42, Ag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                          q_0
                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             202 TysoboffcologicoactleAspolmValLysAsrValTyrPheLysAsnPheIlePro 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82 PheAlaLeuPheSerLysLeuGluArqThrCysGluLeuIleTyrLeuThrGlnProSer 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       102 SerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThrPhe 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1.22 | John Construction | 1.22 | John Constru
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               494 ITAITAGGTAAAAGGGAAATATTACAAATGGAAGATGATGGTGATTTCATTTCAGTTA 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16.2 TyrLysThrAlaVailleProlleAsuGlySerProArqThrProArqArqGlyGlnAsn 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (82 ArgSerAlaArg11eAlaLySG1nLeuG1uAsnAsp?hhrArg11e11eG1uVa11.euCys 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *94 ITTATGAAITCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTTTCT 753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   242 TysardfyrGluffullefyrLeulysasntysaspleuaspalaargleupheleuasp 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             42 SluLenGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeuLysGluIle 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22 TrpGly11eCys11ePhc11cAlaAlaValAspLeuAspGluMetSerPheThrPheThr 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 GlubysValSerSerValAspGlyValLeuClyClyTyr:!leClntys:gstgsClubeu 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 142 Met LeudysValLeuAspTyrPhelleLysLeuSerProProMetLeuLeuLysGluBro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               154 A GOLA DE LICENTE DE LE LA LICENTA DE LA CONTROLLA DE LA C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6.34 AAAGAAGATGAATATAGATGAGGTGAAAAATGTTTATTTTCAAAAATTTTATAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 62 AspthrSerfhrtysValAspAsnAlaMetSerArgLeuLeuLystysTyrAspValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                222 PhoMorAccserterGlyterValthrFerAsnGlyteuProGluValGluAssLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09:028 459A-33 (1-851) x CS-09-469-522-42 (1-3347)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOCATION: 7..2583
SEQUENCE DESCRIPTION: SPQ IN NO. 42.
                                                           LENGTH: 3347 base pairs
                                                                                                                              IYPE: nucleic acid
SIRANDEDNESS: single
SECUENCE CHARACTERISTICS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3971.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      91.76%
91.76%
                                                                                                                                                                                                                                                                                  Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90.84%
                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                  - Apollode I
                                                                                                                                                                                                                                                                                                                                                                                                                        NAME, 'KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aliquant Scores:
                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09 463 522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unory Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fited. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
```

```
1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1354 AATGEGGTTAATTTAAAAGGGTTTGATTTTACAAAGTGATGGAAAGTTTTATCAAAGCA 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1114 GEGGAAATTOGATCACAGGGATAGAAGTTEGAGTLEGETTGETTAGEGGAGTAAFGGAA 1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1174 TECATIGETTAAATEAAGAAGAAGATTATEEATTEAAAATTTTAGGAAAETTEGAAL 1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1474 GAATCCCTTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTAAACAATCAAAGGAC 1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1594 AAICACAGGGGAGGAGATATGTAGTITGTCGGTAAGATCTGGAAAGAAAAAGGTTCA 1453
                                                                                                                                                                                                                                                                                                                                                                                                                                     381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             442 AsrValLeuAssLeuLysAlaPheAspPhcTyrLysVallleGluSerPheIleLysAla 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          462 GluClyasnleyThrargClaMcilleLysHisLeuCluargCysGluHisArglleMet 481
                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      382 SerMetLeuLysSerGluGluGluArqLeuSerIleGlaAsnPheSerLysLeuLeuAsn 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         402 AspAsnilePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThrIyr 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               562 GlnLysPrcLeuLysSerThrSerLeuSerLeuFheTyrLysLysValTyrArgLeuAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  582 TyricuargicuasnTbricuCysGlaargicuicuSerGluHisProGluHeuGluHis 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    602 HelleTrpThrLeuPheClnHisThrLeuGlnAsnGluTyrGluLeuMetArgAspArg 621
262 Hisaspi,cThribanthraspSeilbakpSerPheGluThrGlaArgThrProArg 281
                                          622 BisLeuAspGlmIleMetMetCysSerMetTyrGlyIleCysLysValLysAsmIleAsp 641
                                                                                                                                                                                             342 ValugsAsptiediyTyrileBhetysGlatysPheAlatysAlaValClyCheChycys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                482 GluserteualafrpleuseraspserProtectheaspteutletysCinsertysAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            322 AsnleulleSerTyrFheAsnAssCysThrValAsnFroLysGluSerIleLeuLysArd
                                                                                                                                                                                                                                                                                                                                                                                                                                362 V31919116917SerGlbArgTyrtysLeuGlyValArgLeuTyrTyrArgValMetGlu
                                                                                   282 LysScrAsnLcuAspCluCluValAsnVallIcProProHisThrProValArgThrVal
                                                                                                                                                                                                                                                                                                                                                                                          1054 GTGAAGGATATAGGATACATCTTTAAAGAGAATTTGCTAAAGCTGTGGGACAGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       502 ArgGluGlyProThrAspHiSLevGluSerAlaCysProLeuAspLeuBroLeuGlaAsa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         522 AsnHisThrAlaAlaAspMctTyrLeuSerProValArgSerProLysLysLysClySer
                                                                                                                                                                      302 MetAshiib ileClnGlnLcuMetMetIleLeuAshserAlaScrAspGlnProSerGlu
                                                                                                         G
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                             č
                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
```

Ē	1894	UTTTERMENTER
7.0	4.4.2	LeutysphetystlerfevaltirAlafyrtysAspleuProHisAlavalGInGluthr 661
â	1954	CTTAAATTCAAAATGATTGTAACAAGGATACAAGGATCTTCCTCATGCTGTTCAGGAGACA 2013
80	1,6,2	PhetysArqValLeutletysGluGluGluTyrAspSerIleIleValPheTyrAspSer 681
=	2014	TICAAACGIGITTIGATGAAGAAGAGGAGTATGATTITTITTITTITTITTITTITTITTITTITTITTITTI
> 2	682	ValPheMetGlnArqLeuLysThrAsnIleLeuGlnTyrAlaSerThrArqProProThr 701
D.	2074	GECTTCATCCAGAGACTGAAAAAAATATTTGGAGTAACHTGCACAGGCCCCTACC 2133
20	707	LouSerProlloProHisTleProArqSerProJyrLysPheProSerSerProLeuArg 721
ą.	21 44	FIGURACIANTE CONTROLL CONTROL C
÷	77:	HebrodyddydanHeTyrfleSerProLemLysSerProTyrLysTleSerGluGly 741
į	21.44	ALLCCTGGGGGGACATCTALATTGGGCGCGGAGGGGTCCAFATAAAATTCGGGAGGGF 2253
Š	142	LeuProThrPysMetThrProArgSerArq11eLeuValSer11e61y61uSer 761
30	44,77	CTGCCAACAAAAAAAAAGGAAGAAGAAGAATGTAAGTAAG
254 71	762	PhotyphrsordiniysPhedidiysTloAsnGluMetValCysAsnSorAspArqVal 781
3	2114	FFG GGACTICTGAGAGTTCCAGAAAATAAATCAGATGGTATGTAACAGCGACCGTGTG 2373
3	782	LestysArqSerAladleGlySerAsnFroFroLysFroLeutyStysLeuArqPheAsp #01
ŝ	2 574	CITTABARGAAGTOCTGAAGGAAGCAACCCTCGTAAACGACGAAAAAACTGCGCTTTGAT 2433
5	802	HedladlyserAspdlaAlaAspdlysertysHistonProdlydlySertysPhedln 821
101	74 14	ATTGAAGGATCAGATGAAGGAAGTGAAGAGAGAGAGAGAG
:- :-	77 33	olidayskomaladkumetibiseribiangibirangMetGlidaysGlidaysMetAsiasp 841
30	24,34	CAGAAAACGGGAGAAAAGGCTTCTACTCGAACACGAATGCAAAAGCAGAAAATGAT 2553
3	H4.2	SetMetAspThrSetAsuLystluGluLys 851
-3	24,1,4	AGNALOSALANCINAAGAAGAAAA 2583

Search completed: January 19, 2003, 05:35:17 Do time: 158.122 sees



```
converse version 5.1.3 copyright (c) 1993 -2003-60 \mathrm{mpugen} Ltd.
```

nucleic search, using sw model M narcheir

January 16, 2010, 15:20:22 ; Search time 9: 7917 Seconds (without alignments) 16320,731 Million cell updates/sec Fitti ofit:

US 69 (026 459A) 32 Iller sone:

1 GCCATCALGGAGAAAGTTIG.....AAATGAGGAITATTGATAGT 3323 Secquences

Gapop 10.0 , Gapext 1.0 DENITE AND Souther table:

191868 seqs, 222914149 residues

total number of hits satisfying chosen parameters;

Mitaboun DB Seq tength: 0 Maximum DB Seq tength: 2000000000

Post processing: Minimum Match 0% Maximum Match 100%

Listing first 45 summaries

Fublished Applications NA:\* Databasse :

// inc /\_ | - dr'u, | p d pea, Uash\_FUBC\_MB.seq:\*
/enth\_Eqr'ediracl pulpea for NPW\_PUBC seq:\*
/enth\_Eqr'ediracl pulpea\_for NPW\_PUBC seq:\*
/enth\_Eqr'ediracl pulpea\_for NPW\_PUBC seq:\*
/enth\_Eqr'ediracl\_pulpea\_for NPW\_PUBC seq:\*
/enth\_Eqr'ediracl\_pulpea\_for NPW\_PUBCOMB seq:\*

Zejuži výti straty V pubpray 3818 "Niw, rom svoji \* Zejuži výti odata Z zporbpnay3818 (\* PSR o MR seji \* Zejuži kýpi odata Z Zporbpnay386 "NEW, PPR seji \*

Zequiz fiziptodatazlizbubpnaziis66\_FilimeoMin seq:\*

Fred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

COMPUBE: IMM PC compatible
OPERATING SYSTEM: PT-bos/MS fors
OPERATING SYSTEM: PT-bos/MS fors
SUTTWARE. Fatentin Kelease #1.0, Version #1.40
CURRENT APPLICATION DATA:
AFFICACALLA MARGER, US/STA/469,522
FILING DATE: 22-Dec 1999
CLASSIFICATION: URKNOWN:

COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk

PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459

REFERENCE/DOCKET NUMBER: UTXC:506 TELECOMMUNICATION INFORMATION:

TELEFHONE, 512/418-3000 TELEFAX, 512/474-7577 INFORMATION FOR SEQ ID NO: 42:

LENGTH: 3424 base pairs

SEQUENCE CHARACIERISTICS: TYPE: nucleic acid

RECISTRATION NUMBER: 41,071

FILING DATE: · Unknown · ATTORNEY/AGENT INFORMATION: NAME, Hibier, David W.

FILING DATE:

1.03.48		2 4 10 10 1				
ž	Score	Match	Match Length DB 1D	Ě	9	Description
				;		
	1711	1000	1771	5	## 109-469-525-32	Sequence 32, App.1
~1	4.415	8.66	26.83	3	US-09-469-522-30	Sequence 30, Appl
~	3133	8.66	341.5	2	US 09-469-522-28	Scanches 28, Apr.
**	4.115	¥.	15.55	0	US-09-469-522-1	Sequence 1, Appli
u ·	4415	3.	4.1.4	.*	US-09-954-531-143	Sequence 143, App
ε,	£ £ 1.1.8	1.6.6	1554	100	US:09-469-522-50	Sequence 50, Appl
7	17.7	□ 86	3.26,6,	=	US U9-469-522-34	Sequence 34, Appl
x	1777	47.1	1121	=	US -09-469-522-48	Sequence 38, Appl
7	4225.4	11.76	146.1	=	US 09 469 522 40	Sequence 40, Appl
2	77   77	6,15	3) -1		05 09 469 522 3	Sequence 3, Appli
Ξ	4103	5.7 €	¥   ;	=	US-09-469-522-46	Sequence 36, Appl
7.1	4006	7.06	3 447	=	US-09-469-522-42	Sequence 42, Appl
, .	2956.6	○. ₹.₩	3.4B.4	7	US-09-469-522-48	Sequence 48, Appl
7.7	3.444.5	4. 22. 22. 22. 22. 23. 24.	1133		08-09-469-522 46	Sequence 46, Appl
<u>.                                    </u>	1827.4	 30	£16.1	2	88 69 469 522 44	Sequence 44, Apt.
16	2618.4	7 H. H	34,4,7	=	US-09-860-211-7	Sequence 7, Appli
/ 1	478	12.9	45.1	÷	US 09 795 692-7740	Sequence 7740, Ap
×	142.2	7		=	08:09:864:761:3131	Sequence 3131, Ap
-	12'	6.4		<u></u>	US-09-864-761-19910	Sequence 19910, A

,	7.0	104	3.1	304	<u>∵</u>	US 09-964 824A 296	Section of Act Act
	21 6	58.8	~÷	3965	ç	67 856-757-60 SD	Cestatence (2), Appl
. •		59.4	æ ::	324	ž,	US 39 796 692 2546	Statute first 2546. Ap
	2.4	 	1.5	1747	0	US 09:770 657:1	Sequence 1, Apply
•		[2]	1.5	4747	~	US 10 025 676 2	Sequence 2, Appli
Ü	25 4	49.4	1.5	6406Bl	10	US 09 790-988-1	Sequence 1, Appli
•		8.8	1.5	335914	ۍ	US-09-754-854A-2	Sequence 2, Appli
•		48.8	 -	335914	٠,	U.S. 39, 774, 853A 3	Sequence 3, Appli
		48.4	٦. 5	419	0.	US 09-969-374-342	Sequence 442, App
		48.4	1.5	414	2	US 09-969-474-443	Sequence 343, App
บ		8.4	7.5	514509	5	US-09-754-854A-4	Sequence 4, Appli
		7.8	1.4	4.74	01	US 09-960-452-11218	Sequence 11218. A
		7.6	1.4	411	10	US-09-960 452 14521	Sequence 14521. A
		4.7	1.4	393	10	-69-960-452-	Sequence 4582. Ap
Ú		46.2	1.4	302250		09+962-842	
		5.8	1.4	4 41	10		Sequence 5558, Ap
		5.6	1.4	4.1%	2		Seguence 11234
		45.4	1.4	516	10		Sequence 5785. An
		5.2	1.4	6406H1	10	US 09-790 988-1	Sequence 1. Appl
C	39.4	44.6	1.3	555	=	US-09-864 761 12458	Seattle 12 458.
•		4.6	1.3	2000	5	US 09 938 842A 27+9	Section 2769, Ap
•	4	₹	1. 3	2000	5	US: 09-938-8428-4147	Sequence 4147. An
	4	₹	~	2000		US 03 938-8428-4050	Symmetric 4050. At
· c	4	4	~	1 4 7 6	<u> </u>	545 A572 350 50 SE	Section 1975 April April
	4	. 4		2000		HS-09 948 842A 5166	THE STATE OF THE SECOND SECONDS
		٠.		00007		00 00 00 00 00 00 00 00 00 00 00 00 00	of Contraction of the Contractio
-	7	a. .1		C	2	4 180:027-80-80	Sequence 4, Appli
						ALTONMENTS	
PFSULT	PESULT 1 US 04 469 522 32	ਹ ਹ					
SC	ancont	12, Ap	Polid	Sequence 12, Application US/99469522	1964		
-	Fatent No. US20020151461A1	0.750	.2015	1461A1			
	GENERAL INFORMATION:	INFOR	MATIC	: N:			
	ΛP	PLICAN	T: Xu	APPLICANT: Xu, Hong Ji	11		
			H	Hu, Shi-Xue	1		
			H	Benedict, William F	3	Liam F.	
			- T	Zhou, Yunli	_		
٠.	-	THE SE		 NO:: N	Ξ Σ	INVENTION: MODIFIED RETINOBLASTOMA TUMOR	K SHPPKESSOR
					PROT	PROTEINS	
	Z	∪ d∃tiMi	P SEC	NUMBER OF SECHENCES: 51	51		
٠.	Ē	्रम्यम् स्रम्थम्	N.F. N	COPRESPONDENCE ADDRESS:	 S.		
		ADE	RESSE	E: Arno	Ď.	ADDRESSEE: Arnold, White & Durkee	
		SIR	KEI :	STREET: P.O. BOX 4433	× 47	~~	
		II.	Y: Ho	CIIY: Houston			
		VIS	STATE: TX	×			
		COE	NTRY	COUNTRY: USA			
		211	. 772	10-4443			
	000						

```
6) AAGGAATIGIGGGAARGIGTATCTITTTTGGAGGTFGAGGGAGAGAGAGAGAGAGAGAGTTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 ACTITITACTICAGCTACACAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 AAAGAAATTGATACCAGTACCAAAGTTGATAATGGTATGTCAAGACTGTTGAAGAAGTAT 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 GATGTALTGTTPGCACTCTTGAGGAAFTGGAAAGGACATGTGAACTTATATATTTGACA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             351 ATCACATITITIATIAGGTAAAGGGGAAGTATIACAAAIGGAAGAIGIATCIGGIGAITICA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12] JILGAGIIAATGCIAIGTGTCTTGACTATTTAATTAAAGTCTGAGCTGCGATGTTGCTC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4.4.1. AAAGAAGGATATAAAACAAGGGGTGTTATACGGATTAATGGTTGGGTGGAACAGGGGAGGGGGA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USTCABAACABBAGTGCACBGATAGCAAAACAACTABAAATGATACAAGAATTATTGAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541 ng icadaacaggagnigcagganagcaaaacaachagaaaanganacaagaannannga 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      *-1-3FIGEGIGIAAAGAAGAIGAATGTAATATAGATGAGGIGAAAAATGTTTATTTGAAAAAT-660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 **1 HILALAGGILLIALGAALTCHCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.1. AATOITIYTAAAOGAIACGAAAGAAAITIAICIIAAAAAIAAAGAICIAGAIGGAAGAIIA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7.21 AATGITTGTAAACGAFACGAAATTTFATGTTFAAAAATAAAGAFGAFGAFGAAGAFTFA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     741 HILLIGGALTALGALAAAACTCTICAGACTGATTCTATAGACAGTTTTGAAACACAGAGA 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78. TITITGGALCATGATAAAACTCTTCAGACTGATTCTATAGACAGFFFFGAAACACAGAGA 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841. ACACCACGAAAAAJIAAAGCITIGATGAAGAGGIGAATGITAATHIOTHIOADAGHOAGHH 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 ANRIVAACTGTGGGGAATCTGTTTATTGTAGGAGTTGACGAAGTTAGATGAGTTGTGTTC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 GATGIAIIGITIGCACTCTICAGCAAAITGGAAAAGGACAIGIGAACTIAIAIAITIGACA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901 AGGACIGITATGAACACIAICCAACAAITAATGAIGATITIAAAITCAGCAAGTGAICAA 960
                                                                                                                                                                                                                                                                                                                                                           1 GROATCATGGAAAAATTTCATGTGAATGGATTATTGGGAGGTTATATATTCAAAAAAA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  351 CAACCCACCACTCCATATCTACTCAAATTCTGCATTGGTGCTAAAAAGTTTGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601 JITCICITGIAAAGAACAIGAAIGIAATAIAGAIGAGGIGAAAAAIGIIITAITITGAAAAAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%, Store 3323, DB 10; Length 3323; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0: indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                     SEQUENCE DESCRIPTION: SEQ ID NO: 32;
STRANDEDNESS: single
                                                                                                           .2559
                          ToPoLOGY: linear
                                                                                                                                                                                                                                                                          Matches 3323; Conservative
                                                                                 NAME, KUT.
                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                        Surery Matth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \hat{\tilde{\Xi}}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -
```

```
961 CCLICAGAAAATCTGATTTCCTATTTTAACAACIGCACAGTGAATCCAAAAGAAAGIALA 1020
                                                                                                                                                                                                                            1021 CTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAACTGTGTGGA 1083
                                                                                                                                                                                                                                                                              1081 CAGGGTGTGTGGGAAATTGGATCACAGGGAIACAAACIIGGAGIICGGIIGIAITACCGA 1140
                                                                                                                                                                                                                                                                                                                           1081 CAGGGTTGTGTGGAAAIFGGALCACACAAAACTTGGAGTTCGCTTGTATTACCGA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261 GCCACATAFAGCAGAGGACATCICAGAATCIFGAGAACAGATTGFCTTICCCA 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1981 CAGGACATTCAAACGTGTTTTGATCAAAGAAGAGGAGTAGGATGTATTATAGTATTC 2/40
                                                                                                                                                                          1021 CTGAAAAGGGTGAAGGATATAGGATACATGTTTAAAGAGAAATTTGCTAAAGCTGTGGGA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1441 CGAATCAIGGAATCCCTTGCAIGGCTCTCAGAT1CACCTTTATTTGATCTTATTAAACAA 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1741 CGGCTAGCCTALCTCCGGCTAAATACACTTTGTGAACGCCTTCTGTGTGTGAGCACCCAGAA 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321 TGGAFTCTGAATGTGCTFFAATFFFAAAGCCTFTGATFTFFACAAAGTGATCGAAGGTTTT 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1381 ATCANAGCAGANGGCAACTTGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACAT 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1681 TTCCAGACCCAGAAGCCATTGAAATCTACCICTLICACTGTTTAFAAAAAAGGTAF 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R61 AGAGACAGGATTTGGACCAAATTATGATGTTCCATGTATGGATATGGAAAAGTGAAAAGTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1921 AATATAGACCTTAAATTCAAAATCATTGTAACAGCATACAAGGATGTTCCTCATGCTGTT 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1861 AGAGAGGGATTTGGACCAAATTATGATGTGTTCCATGTATGGGATATGCAAGTGAAGTGAAG
                                                                                                                           1141 GHAAFIGGAATGCATGCTTFAATGAGAAGAAGAACGATLATGCATLGAAAALLTLAGMAA
                                                                                                                                                                                                                                                                                                                                                                                                                               1141 GTAATGGAATCGATGCTTAAATGAGAAGAAGAAGAATTTTTGGATTGTTTAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201 CTTCTGAATGACAATATTTTTCAIATGTCTTTATTGGCGTGGGGTCTTGAAGGTTGTAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1561 CTCCAGAAIAATCACACTGCAGCAGIAIGIAIGITICTCCTGTAAGATCTCCAAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1621 AAAGGTTCAACTAGGGTGTAAAF1CTACTGCAAATGCAGAGACACAAGCAACCTCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1801 TIAGAACAINICAICIGGAQOCITITICCAGGACACCCIGCAGAATGAGIATGAACICAIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1921 AATATAGACCTIAAAIICAAAAATCAIIGIAACAGCAIACAAGGAICTICCICAIGCIGII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            리
- - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
```

```
2981 6GAPACTGEGRAPACCECEGGALICATEGECECEGAGGAGCEGATGHACCTFCCC 2640
1981 CAGGAGAT ICAAACHTEGATGAAAGAAGGAGTATGATATATATATTC 2040
                                                                                                                                            2041 TATAACHYGGGGTGTGGAGGAGAGGAAAACAAAATATTTGGAGGAGGTGGAGGAGGGG 2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2701 GA O'C'AATTOLLI HITTI HITTI HITTI HITTI HITTI HITTI HITTI HITTI AZAO 2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PERTECTION OF THE PRODUCT OF THE PERTECTION OF T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HILLITELLE THEFT THE STATE OF THE STATE OF THE STATE OF THE STATE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2041 IATAACTCGGTCTTCATGCAGAGTGAAAAAAATATTTGCAGTATGCTTCCACCAGG 2100
                                                                                                                                                                                                                                                                                                                                                                                                                                            2101 COCOLIACOTIGICACOALACOTOACA HOGICGAAGGCOTTACAAGTTIGGIAGTIGA 2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2101 COCCOTAGOTEGECOAATACCTCACATTGCICGAAGCCCTTACAGTTICCTAGTICA 2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2221 FONJAMGTOTORONANYACOANANAATGARTEGANGATGAAGATGAAGAATTAGTATGAATT 2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2221 FUNDANCECTOCCAACACAAAAAATGACTCCAAAGATCAAGAATCTTACTATCAATT 2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2281 GOLGAA GATTERBOARTTETOTOAGAAGTTECRAAAATAAATCAATGAATGTAAGAGE 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2.441 GACCOTOLCHOAAAAAAGIOCTGAAGGAAGCAACCIFCTTAAAGGAAAAAAGTA 2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2401 COTTIGATATICAAGGATOAGAATGAAGGAAATGGAAGGAAAGTAAACATGCCAGGAGAGAGTCC 2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2461 AAATTICAGGAGAAAATGACTAGTAGTAGTAGAATGGAAATGGAAAAGGAGAAA 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2581 GGAGACTGTGTACACCTCTGGATTCATTGTCTCTCACAGGTGGACTGTATAACTTTCCC 2640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2641 AGSTECTGT FIALGGCCA/ATTIAAIATCTTCAGCTCTTTTGGGGGGAIAIAAAAIGGGCA 2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2701 GATGCAAITGITIGGGIGAITCTTAAGCCACTIGAAAIGIIAGGCAIIGIIA111AIACA 2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2761 AGATTGAAAATCTFGFGTAAAFCCTGCCATTTAAAAAGTTGTAGCAGATTGTTGCTCTT 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZBB1 TAACCCAGGCCTGTGTGACTACTTTGCTTTTTGTAGCATATAGGTGATGTTTGCTCT 2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2941 PSTITITATTAATITAIAISTAIATITITITAATITIAAGATGAACACCOTTAGAAAAAIGI 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8001 3100 A FOLATO FIGNAA FIGNAA FILMA FIGNO GA FILMAGAAAA FATGA BAA BABA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8001 GF0CTATCTATCTTCCGAATGCAATTTGATTGACTGCCGTTCACCAAAATTATCCTGAA 3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9061 CTCTTCLGCAAAAATGGATATTATTAGAAATTAGAAAAAAATTACTAATTTTACAGATTA 3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     216.1 CONTINCABATION BARBARACATOTATATIOACCOCCISAACACACATATAAAATT 2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2461 AAATITOAGCAGAAACTGGCAGAAATGACTTGTAGTGGAAGAGGGAATGGAAAAGGGAAA 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2521 ATGANTGANAGCANGGANACCICAAACAAGGAAGAAATGAGAGANGTONGGAGCINGGN 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2641 AGGILCIGITERAGGCGGCALIJAALAIGTERCAGGTGTFITGGGGATATAAAAFGTGGA 2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2821 CCAAAGTAAAAT DOTGEDGELFALGGALAGTAAGAATGGCGCTAGAATGGGAGTGCTGA 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2941 TGTTTTIAITATTTAIAIGTAIGITTTTTTTAATTTAACAIGAACACGTTAGAAATGT 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \tilde{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ē
```

```
3181 TAATTAAATAAAAGCIGGAAGCAAAGTAIAAOFAFAIGAIACTALOTACTACTACAAACA 3240
                                                                                                          4241 GATITCATACCICAGAAIGIAAAAGAACTIACTGATTATTITCITCATCCAACTTAIGT 3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Saps
3121 GATITTATITTACTATTGGAATCTGALAFACTGTGTGTGTTTTATAAAAHTTGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zhou, Pumli
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUFPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99.8%; Score 3415; DB 10; Length 4492; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ξ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RECISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC;506
IELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC DOS/MS-DoS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 7..2628
SEQUENCE DESCRIPTION: SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 22-Dec-1999
CLASSIFICATION: +Unknown+
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Benedict, William F.
                                                                                                                                                                                                                                                        3301 TTTAAATGAGGATTATTGATAG1 3423
                                                                                                                                                                                                                                                                                                 3301 TITAAATGAGGATTAITGATAGT 3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 40, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGIH: 4492 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNYZAGENT TOPOEMATION:
NAME: Hibler, David W
REDIEFFER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: P.O. Box 4433
CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 100.0%; P
Matches 3315; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: 40:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: mucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FURM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANI: Xu, Hong-Ji
Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PoPoloGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No. USZUÖZU151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                  US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-469-522-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                  RESULT 2
                                                                                                                       <u>a</u>
                                                                                                                                                                    ć
                                                                                                                                                                                                               a
                                                                                   ò
```

1457 2238 GATTCCTGGAGGGAACATCTATATTTCACCCTGAAGAGTCCATATAAAATTTCAGAAGG 2257 1149 ATCCATGTTTAATCAGAAGAAGAAGATTAFCCATTCAAAATTFTAGCAAAGTLCLGAA 1208 1329 GAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTALGAAAGC 1388 1449 GGAATGGGTTFGGATGGGGTTGAGATTGAGGTTTATTTGATGTTTTAATTAAAGAATGAAAGGA 1508 1509 cogadaadannaaridalmammikaaretee 150e oo garammikaareteen 1578 CCGAGAAGGACCAACTGATGACGTTGAATGTGGTTGTGCTTAATCTTCCTCCTCCAGAA 1637 1629 AACTACGCGTGTAAATPCTACTGCAAATGCAGAGACACAAGCAACCTGAGAGTT688 1878 TAICAICHGGACCITIITCCAGCACACCCIGCAGAAIGAGIATGAACTCATGAGAGAG 1937 1929 COTIAAATIGAAAATGATIGIAAACAGATAGAA3GAIGIIGGIGGIGGIIGAGGAGAG 1988 1989 ATTICAAACGTGTTTTTGATGAAGAAGAGGAGTATGATTGTATTATAGTATTCTATAACTC 2048 2049 GGTGTTGATGPAGAGAGTGAAAPAAAAAAIATTEGGAGTTGGTTGGAGGGGGGGGTAG 2108 2118 GCTCTTCATGCAGAGAGAAAGAAATATTTTGCAGTATGCTTCCAGGGGGGCGCTAC 2177 2109 CTTGTCACCAAIACCICACAIICCICGAAAGCCIIACAAGIIICCIAGIICACCTTACG 2168 2169 GATTGOTGGAGGGAACATCTATATTTGAGCGGGAGAGGGGCCATATAAAATTTCAGAAGG 2228 1158 TGTCGAAATTGGATGAAGGGATAGAAAGTFGGAGTGGGTFGTATAGAATTGGA 1217 1749 CIAICICCGGCIAAAIACACIIIGIGAAGCCIICGIGIGAGCACCCAAAAIFAGAACA 1338 IAGCAGAGIACATCTCAGAATCTIGAITCTGGAACAGAITIGICTTTCCCATGGAITCT 1389 AGAAGGCAACTIGACAAGAAAAIGAIAAAACAITIAGAACGAIGIGAACAICGA 1458 AGAAGGCAACTTGACAAGAAAAGATGATAAAAGATTTAGAAGGATGTGAAGATGGAATGA 1689 CCAGAAGCCATTGAAATCTACCTCTTTCACTGTTTTATAAAAAAGIGTALGGGLAGA 1809 TATCATCTGGACCCTTTTCCACCACACCCTGCAGAATGAGTATGAACTCATGAGAGACAG 1869 GCAPTIGGACPAAATTATGATGTGTTCCATGTGGGATATGCAAAAGTGAAGAATATAAA TGACAACATTTTTAATATGTTTTAATGGGGGGGGTTGTTGAGGTTGTAATGGCCACATA 2058 ATTCAAACGTGTTTGATCAAAGAAGAGGAGTAIGATCTAITATATAGATCTAIAAACTC 1269 TAGGAGAAGTAGATGTGAGAATGTTGATTGTGGAACAGATTTGTGTTTGCCALGGALLGT 1998 CCTTAAATTCAAAATCATTGTAACAGGATACAAGGAFCTTGCTGAFGCTGTFAAGGAGAC 1209 q DP CP 90 G 급 QQ qq 9 δ ó ò 6 ŝ 50 οy

3309 AGGATTATTGATAGT 3423

```
THE HELLER HELT HELLER HELLER HELLER HELLER HELLER HELLER HELLER HELLER HELLER 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2718 IFTATGGCCAGATITAATAICTFCAGCTCTTTTTGTGGATATAAAATGTGCAGATGCAAT 2777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2728 TGITTGGGTGATTCCTAAGCCACIIGAAAIGITAGCATGTTATTATACAAGATTGAA 2837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2229 TCTGCCAACACAAAAATGACTCCAAGATCTTAGTATCTTAGTATCATGAATC 2288
                                                                                                     Z298 ICTOCCAACAACAAAAALGACTCCAAGATGAAGAATCTTAGTATCAATTGGTGAATC 2357
                                                                                                                                                                                                                       2289 ATTCOGGACITICIGAGAAGIICCAGAAAAIAAAIGAGAIGGIATGIAACAGGGAGGGTGT 2348
                                                                                                                                                                                                                                                                                                                                                                                                                                              Z 349 GPTCAAAAAAASTOFFGAAGAAGAAGGAACGTPTTAAAGCAGTGAAAAAATTACGGTTTGA 2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2529 TABGATGGATAPPPPAAAPAAGAAGAAAAGAAATGAGGATGTGAGGAGACTTGGTGGACACTG 2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2598 TAGGALGGALACTCAAAGAAAGAAAAAAAAAAAGAAAGIGAAGACGITGGIGGAQACIG 2557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2589 TGTACACCTCTGGALLCALGICICICACAGIGGACIGIAIAACII E 02AGILGIG 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2649 ITTATGGGGAGATITAATATGTGAGGGTGTTTTGGGATATAAAATGTGGAGATGGAAT 2708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2709 TGFLIGGGTGAT FCTAAGCCACFFGAAATGTTAGTCATTGTTATACAAGATTGAA 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2769 AATGITGIGIAAATGCIGGCAITIAAAAAGIIGIAGGAGAITGIIIGGCIGIIGGAAAGIA 2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2898 AAATEGTGTGTTTATGGATAGTAAGAATGGCCTAGAGTGGGGAGTCCTGATAACCCAG 2957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2889 COTICHORANTACH LICOTHICH FOR TAXABLA TAGGICA I GETT CELL TITLE 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2958 GOURGEOTOACIACTITGCOTTCTTTGTAGCATATAGGTGATGTTTGCTCTTTTTA 3017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2949 TIAATITATATGTATATTTTTTTAATTIAACATGAACACGGAAAAAAGGAAAAATGTGTCCTATC 3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (009 TATCLIC/AAAIG/AATITGAITGACIGGGGAITGACGAAAAIIAIGIGAACIGIICIG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1969 CAAAAA EGGATATTA GAAATTA GAAAAAA ITTACTAATTI TAGACATTAGA ESTITTA E 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (138 CAAAAATGGATATTATTAGAAATTAGAAAAAATTAGTAATTTTAGTATTTAT 3197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4129 TITACITATIOSAATCICATATACIGIGICITITITATAAAATTITGCITITAATTAAA 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (189 TAAAAAGCTGGAAAGCAAAGTATAACCATATGATACTATCATACTACTAGAAACAGATTTCAT 3248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3308 3308 ACTERAGATETAAAAGTEAGTGATTALETEGATEGACHAGGTTTTAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1198 TITACTATIGGAALCHGATACTGTGCTTGTTTTATAAAATTTTGCTTTTAAAFAAA 3257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ==
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
```

```
129 TGAGCTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAAAT 18B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Benedict, William F.
Zhou, Yauli
TILE OF INVENTION: MODIFIED RETINOBLASTOMA 10MoR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 10; Length (45%)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Armold, White & Durker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 4415;
Pred. No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: THM PC compatible GRILABITAG STATIM, BY DASSING DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 7..2691
SEQUENCE DESCRIPTION: SEQ 1D NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 22-Dec-1999 CLASSIFICATION: *Unknown.PRIOR APPLICATION DATA:
                                                                                                           Sequence 28, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             512/418-1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 3455 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: «Unknown» ATTORNEY/AGENT INFORMATION: NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                STREET: P.O. BOX 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 512/474 257
INFORMATION FOR SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACLERISLES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9.3.8
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                      APPLICANT: Xu, Hong Ji
                                                                                                                                                                                          Hu, Shi-Xue
3378 ACCATTALTCATACT 3392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 3415; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
21P: 77210:4433
                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                 // Patent No. US20020151461A1
// GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAMEZKEY: CDS
                                                                                                                                                                                                                                                                                                                                                                  CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                  SIAIE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                          RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
```

80 0, 0, 80 0,	8 0 8 0	8 0 8 0	8 0 8 0	89 0 88 0	)40 )40 )8	60 60 88	2.0 4.8 9.0 14.0	.68 00 128 .60
CAG CAG ATT		GAA GAA CTG	ACC ACC TTC TTC TTC	GGA 111 968A ACG 111 ACG	TGT TGT TGT AGA 111	AAG AAG TTG	AGGATANTA AGGA AGAAACTIGGAGTIGGGAGAGGGGGGGGGGGGGGGGGGGG	ACATETECATAL CETTATE CONTROL C
21 SAC	AA1	ATA ATA CAG	A I I I I I I I I I I I I I I I I I I I	TAA TAA TCA	AAA I	AAA AAA AGT	ACTOR TGTCC ALCCA ATCCA	15AC) 1111 15AC) 16AC) 11AC) 1111

:	900	THE PARTY OF THE P
ĝ ŝ	7, 1	
er e	- 0	GANTGIG, FLANTTIANANGCCTTIGATITIIACANAGIGATCCANAGITITATCANAGC 1520
ò 4	1521	
ΟY	1449	GGAATCCCTTGCATGGCTCTCAGATTCAGCTTTATTTGATCTTATTAAAGGA 15UB
οĵ	1581	HITTELLE HIT
ò q	1509	509 CCGAGAAGGAACGAACGAACAAAAAAAAAAAAAAAAAA
3 3	- 0	CC 1991 DOSC 1991 CONTRACT TO BOTT CONTRACT TO CONTRAC
à A	1701	ANY ARANGANANANANANANANANANANANANANANANANANA
δò	1629	AACTACROTROTAAATTICTACTORAATTGRAGAGAGAAGGAAGGAAGCTRAGATTGCAGAT 1688
q	1761	AACTACGCGTGTAAATTCTACTGCAAATGCAGAGACACAAGGAACCTCAGGCTTCCAGACTTCTAGTACAGACAACAAGAACCTCAGACTTCCAGACTTACAAGAAATGCAAGAACAAAAAAAA
े दे	1689	CCAGAAGCCATTGAAAICIACCTCTCLILCACTGTLLAAAAAAAGTGTATCGGTAW: 1748 
	1749	TO MORROW TO COMMENT TAKES TO LICE TO TO SEE THE MEMBRAND OF MEMBERS 1800 OF TAKES TO SEE THE SECOND TAKES TO SECOND TAKES TO SECOND TAKES TO SECOND TAKES THE SECOND TAKES TO SECOND TAKES THE SECOND TAK
g q	1881	CTATCTCCGGGTAAATACTITGTGAAACCTTCTGTGTGAGCACCCGGAATTAGAACA 1940
δ	1809	TATCATCTGGACCTTTTCCAGCACCCTGGAGAATCAGTATGAACTCATGAGAGACAG 1868
â	1941	
λ i	1869	GCALTIGGACCAAAITAIGAIGIICCAIGITAGGCAIATGGCAAAGIGAAAGAAAIAAA 1928
Š. B	1929	RUNAH TITUBAT TARAH MERUPUNTUK PUSTATURKATAN BERANDISAN KERANDISAN KERANDA SEBUAT SEBUAT PERMANDA TERPANDA TERP
s. 원	2061	CCTTAAAATCAAAAATCATTGTAACAGCATACAAAGGATCTTCCCTCATGCTCTTCAGGAACACCTTCA
ò	1989	ATTICAAACGIGTTTTGATCAAAGAGAGGAGTATGATTCTATTATAGTATTGTATAAGTC 2048
십	2121	
ò	2049	GGT-CTCATGCAGAGACTGAAAAAATATTITGGAGIAGGTTCCACCAGGCCCCTAC 2108
g	2181	GENETITI III III III III IIII IIII IIII I
δλ	2109	CTIGICACCAATACCTCACATICCTCGAAGCCCTTACAAGFFFCCTAGTTCACCTTACG 2168
47	2241	CITGICACCAAIACCICACALLCCICGAAGCCLIACAAGTIICCIAGIICACCCIIACG 2300
70	2169	GAFFICCFCGAGCCAACAFCTATATTFCAGCCCTGAAGAGTCCATATAAAATTFCAGAAGG 2228
qq	2301	GATTCTGGAGGGAACATCTATATTCACCCTGAAGAGTCCATATAAAATTTCAGAAGG 2360
ó	2229	TCTGCCAACACCAACAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAATC 228H
qq	2361	GAATC 2
රි සි	2289	ATTCGGGACTTCTGAGAAGTTCCAGAAAATAAATCAGATGGTATGTAACAGACGGCGT 2 488 THEFFILE HILL HILL HILL HILL HILL HILL HILL H
i è	4.	2 4010 F
2 3	4.8	CICAAAAGAACIGCIGAAGAAGCAACCICCIAAACAAAAAAAA

Zhou, Yunli

```
2459 PERIODAMAN DERINAM DA TELETACH CONTROLAM DISTANDAM DISTANDAM DA TANDAM DA TELETACIAN DE SERVICIAN DE SER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2529 TAGGATGGATACCTCAAACAAGIAAGAAATGAGGATCTCAGGACCTTGGTGGACAATG 2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2661 TAGGATGGATACCTCAAACAAGGAAGAAATGAGGATCTCAGGACCTTGGTGGACACTG 2729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2589 TOTACACTOTOCALLOATECTOTOTOCACATOTOACTOTATAACTITOCCAGGTTCTG 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22.21 FOR A NOTOTORISM TO A TOTOTORISM TO THE HITCH HITCH HITCH CONSTRUCTORS (2780)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2649 TTTAEGGGGAATTTAATALCTFCAGCTCTTTTGGGATATAAAATGTGGAGAFGCAAT 2708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2709 TGTTTGGGTGATGCTAAGCGACTIGAAATGTTAGTTATTATTATTATAGAAGATTGAA 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2769 AATOTOTOTOTAAAFOOTOTAAAAAGTIGTAGCAGATTGTTCCTGTTCCAAAGTA 2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2901 AATSTEGESTAAALGGIGGGAITIAAAAAGIIGIAAGGAGAITGTIGIITGIIGGAAAGIA 2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZBZ9 AAATTGCTGTGTCTTTATGGATAGIAAGAATGGCCCTAGAGTGGGAGTCCTGATAACCCAG 2888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2949 HAAFITALATGIAJATITITIAALITAACATGAACACGCTTAGAAAAFGIGTCCIATC 3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HELLER HE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0009 TAPTICCAAATGCAATIIGATIGACIGCCCATICACAAAATTAICCIGAAATICIICIG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3128 CAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTATTAGACATTAGATTTTAT 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1129 TELACTALEGGA LCTG ALAL TOTAL TALA A TELEGO TELACTATA A 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4251 TTTACTAFFGGAATCTGATATACTGTGTGTTGTTFTATAAAATTT1GGTTTTAATTAAA 3320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4189 TAAAAAGCTGGAAAGCAAAAGTATAAACGATATGATACTATACTACTGAAAACAGATTTGAT 3248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4249 ACCICAGAAIGIAAAAAAAACIIACIGAIIAITITGIICATGAAGIIATGIITTIAAAIG 3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4-01 | FELLI |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1121 TAAAAGCTGGAAGCAAAGTATAAGCATATGATAGTATCATACTACTGAAACAGATTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3309 AGIALIALIGALAGI 3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3441 AGGALIALIGAIAGI 3455
```

Benedict, William F.

Xu, Bonq Ji Hu, Shi Xue

: Sequence 1, Application 08/09469522 : Fateut No. 0820020151461A1

RESULT 4 US O9 469 522 1 GENERAL INFORMATIONS
APPLICANT: X4, 1

```
69 GTGGGGAATCTGTATCTTTATTGCAGCAGTTGACCTAGATGAGATGTCGTTCACTTTAC 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    129 TGAGGTACAGAAAAGATAGAATGAGTGTCCATAAATTGTTTAACTTACTAAAAGAAAT 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360 TGAGCTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTA'TAAAAGAAAT 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            189 TGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTTT 24B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480 GITIGGACTCTICAGCAAATIGGAAAGGACATGIGAACITAIAITIGACAAAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 249 GITTGGACTCTCAGCAAATTGGAAAGGACATGTGAACTTATATATTGACACAAAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            309 CACTTCGATATCTACTGAAA FAAATTCTGCATTGGTGAAAGTT LCTTGGTGACATT 36B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 / Match 69.8%; Score 3415; DH 10; Length 455; Local Similarity 200.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                 ADDRESSEE: Arno.d, White & Durkee
                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA: APPLICATION NUMBER: US/O9/469,522
                                                                                                                                                                                                                                                 COMPUTER: 18M PC compatible OPERATING SYSTEM: PC DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: 7..2790
SEQUENCE DESCRIPTION: SEQ ID NO: 1;
                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 22-Dec-1999
CLASSIFICATION: < Unknown>
                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 3555 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                  - Bakaowa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 512/474-7577
                                                                                                   STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SECUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO. 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleic acid
                                      NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 3315; Conservative
                                                                                                                                                             COUNTRY: USA
21F. 27210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: CDS
                                                                                                                      CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
```

=

\$ 5		ALBETTATGEGETTGACTATTTATTAAACTCTCACCTCCCATGTTGCTCAAAGAACCAAAAAACCAAAAAAAA	488
	489 A	TOGARAPPARAGESAGGTC	
	720 8		
	549	TACAAGAATTATTGAAGTTC	
	78.:	IACAAGAATTATTGAAGTTCTCT	6836
5 Ê	64.0	619 TAAANAAVATGAATGTAATATAGAGGTGAAAAATGTTTATTTCAAAAATTTTATACC 	668 899
	6.6.4.T	ACTICCAGAGGIIGAAAATCI	728
	1	IIITALGAAITCICITGGACTFGTAACATCTAATGGACTFCGAGGFTGAAAATGTTTC	656
	7.2.4	TCTAGATGCAAGATTATTTTGGA	788
	. 4	TCTAGATGCAAGATTATTTTGGA	1019
	78+1	TTTTGAAACACAGAGAACACCAGG 	848 1079
	8449 A	TCCACACACTCCAGIIAGGACIG	908
	1080	TCCACACACTCCCAGTTAGGAC	1139
	1 505	BIGAAPACTARCCAACAATTAARGATTTTAAATTCAGGAAGTGATCAACCTTCAGA	896
	1140 1	TTCAGCAAGTGATCAACCTT	119
	7 595 - 4 0071	MATCTGATTTCCTATTTTAACAACTGCACAGTGAATCCAAAAGAAAG	102
	1 6701	TGCIAAAGCIGIGGGACAGG	108
	1260 7		1319
	### ### ### ### ### ### ### ### ### ##	TCGCTTGTATTACCGAG1AATGG	~
		TOGOTTGTATTACCGAGTAAT	7
	7 6511	NTCCATGCTIANATCAGAAGAAGAACGATTATCCATTCAAATTTTAGCAACTTCTGAA 	0 ~
	I to a !	TCTTGAGGTTGTAATGGCCAC	26
	1440 I	BACAACATTTTCATATGCCTTATTGGCGTGCGTCTTGTGGGGTGTAAGGCCACATA	o (7:
	1.26.9	AGA FITIGICH ITCCCALGGAITC	3.2
	3	AGATTGTCTTCCCATGGATTC	LO.
	1423 0	AGTGATCGAAAGTTTTATC	138
		AGTGATICGAAAGTTTTTATIC	161
	1 (8) A	AGAACGATGTGAACATCC 	1448
5		GGCT LGGATGGCTG LGAGATTGAGTTTTATTTTGATCTTATTAAACAATCA	150
1345	~	TGCATGGCTCTCAGAT	7

2348 2408 1809 CCCAGAAACGACCAACTGATCAACTIGAATCTGCTGTGTCCTTAATCLTCCTCTCTCAAAA 1568 1569 TAATCACACTGCAGCAGATATGTATCTTTCTCCTGTAAGATCTCCCAAAGAAAAAAGGTTC 1628 1689 CCAGAAACCALIGAAATCIACCICITICACITITAIAAAAAAAGIGIAITGGCIAGC 1748 1749 CHANGUGGGTAAATAGAGTTTTGTGAAGGCGTTGTGAGGGAGCAGCAGAATTAGAAGA 1808 2049 GGTCTTCATGCAGAGACTGAAAACAAAIAIIIIGGAGIATGGTTCCAGGAGCCGCCCAG 2108 2340 CITGICACAAFANGICANALICHGAAAGCGIIACAAGIIICGIIAGIIACGIIAAGG 2169 GAUTTOPEGGAGGGAAGATTTTTACCCCTCAAGACTCCATAAAATTTCAGGACC 2228 56 39 2640 TAPUGAAGGATCAGAAGCAGAAGTAAACAGAAGTAAACATCAGCCGAGAGAGGGCGAAATTICA 2699 2589 TGTACACCICIGGATFCAITGTCTCACACATGTGACIGIAIAACTTCCCAGGTTCTG 2648 1740 CCGAGAAGACCAACTGATCAGCTTGAATCTGTCCTCTTAATCTTCCTCCTCTGAGAA 1799 1869 GCATTISGACCAAATTATSATGTSTTCCATGIAISSCATATGCAAAGAAATATAGA 1928 2100 GCATTTGCACCAAATTATGATGTGTTCCATGTATGCCATATGCAAGAGTGAAGAATATAGA 2159 1929 CCTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCTGTTCAGGAGAC 1988 1989 ATTCAAACCTCTTTTGATCAAAGAGGAGTATGATTCTATAGTATTGTATAGTTGTOOTB 2229 TCTGCCAACACCAACAAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAATC 2288 2400 GATTÉCTGGAGGAAGATTATTATTTGACGCTGAAGACTGATATAAATTTCAGAAGG 2040 TATCATCACCACCTTTTCCAGCACACCTGCAGAATCACTATCAACTCALCACACACAC 2109 CTTGTGAGGALAGGLGAGALLGGTGGAAGGGGGTAGAAGLFTGGTAGTTGAGGCTAGG 2289 ALTOGOGACTIOTGAGAAGTEGGAAAATAAALGAGALGGIATGTAACAGGCAGGTGI 2580 GCTCAAAAGAAGTGCTGAAGGAAGCAACCTGCTAAACAGCTGAAAAACTAGGCTTTGA 2700 GYAGAAAYTGGCAGAAATGCTTTAYTCGAACACGAATGCAAAAGYAGAAAATGAATTGA 2160 CCTTAAATTCAAAATCATTGTAACAGGATACAAGGATCTTCCTCATGCTGTTCAGGAGAC 2520 ATTCCCANTTCTCAGAACTTCCAGAAAAAAAAAAAGAGAGATGTAAGAACAGCGACGTGT 2349 GETEAAAAGAAGTGCTGAAGGAAGCAACCTFCTAAACCAGTGAAAAAACTACGCTTTGA 2409 TATTGAAGGATCAGATGAAGCAGATGGAAGTAAACATCTCCCAGGAGAGAGTCCAAATTTCA . δō ò Ġ a Ōλ 40 ŝ Q() ò d ò a ŏ 김 ò a 50 £ ŝ q ô õ 9 ò £ ď

SHE

```
921 TAAAGAAYATGAATGIAATATAGAATGAGGTGAAAATGITTATTTCAAAAATTATAAA 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1151 TCATGATAAAACTCTTCAGACTGATTCTATAGACAG11111GAAACACAGAAAAACACGACG 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               211 AAAAAGTAACCTTGATGAAGAGGTGAATTGTTCTTCGACACACTCCAGTTAGGACTGT 1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     371 GGAGAAAGTITCAICLIGGALIGGAGIALIGGGAGGITALAITCAAAAGAAAAAGAAACT 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               611 GITTGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTTATATATTGACACAAACGA 670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RAM TITALITAGGIAAAGGGGAAGITALIAGAAATGGAAGATGATGAGGGGGGGGGATGATTGCAGTT 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429 AATGCTATGTGTGCTTGACTGTTTTATTAAACTCTGAGCTCCCATGCTAAGAAGAACAAGAAC 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      489 ATATAAAACAGCTGTTATACCCATTAATGGTTTCACCAACAACACCCAGGCGAGGTCAGAA 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          609 TAAAGAAGATGAATGTAATATAAATGAGGTGAAAAATGTTTATTTAAAAATLTTATACC 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      669 TETTATGAATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTCGAAAALCTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             729 TAAANGGATACGAAGAATITATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTGGA 788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    789 ICATGATAAAACTGTTGAGACTGATTGTATAGAGAGTTTTGAAAGAGAGAAGAGAGGG 848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69 GTGGGGAATCTCTTTATTGCACACTGACTTACTGAGATGAGATGTCTTGACTTTACTTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     129 TGAGCTACAGAAAACATAGAATCAGTGTCCATAAATTCTTTAACTTACTAAAAAAAT 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    189 TGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGAAGATGTATT 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           549 CAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGATATTATTGAAGTTCTCTG 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     909 TATGAN WITATOCANGANTAATGATGATTIIAAATI AWAAGAGA GAN TTONGA 968
                                                                                                                                                                                                                                                                                                                                                                                                                    309 CACTFCGAFATCTACTGAAATAAATTCTGCAFTGGTGCLAAAAGTTTCTLGGALCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 9; Length 4839;
                                                                                                                                                                                                                                                                                                                                                         ridels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Fred. ms.
                                                                                                                                                                                                                                                                                 99.88; Score 335;
100.08; Pred, No. 0
                                        SOFIWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                              Matches 3315; Conservative
   NUMBER OF SEQ ID NOS: 1392
                                                                                                                                                                       ; ORGANISM: Homo sapiens
US-09-954-531-143
                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                  LENGIH: 4839
                                                                        SEC 1D NO 143
                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                 Unery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ç.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILLE OF INVENTION: Process for Identifying Anti-Cancer Therapeutic Agents Using Cand
FILLE OF INVENTION: Game Sets
FILE REFERENCE: 689200-77
                                                                                                                                                                                                                                                                                                                                                                        2820 FOTAMAMETERIORITOTORICATION TO TO TO TO TO TO TO TAKE THE TO THE TOTAMETER SECTION SECTIO
                                                                                                  2647 TITALGGGGATATITAATALTICAGCICTITITGLGGATATAAAALGTGGAGATGCAATT 2708
                                                                                                                                          2886 TITATGGCGAATITAATAFTTGGGCTCTTTTTGGGGAATAAAATGGCA3ATGGCAAT 2939
                                                                                                                                                                                                                                     Z/D9 IGTF10GGT5ATTCCLAAGC ACTTGAAATGTTAGTCATTGTTATTATACAAGATTGAA 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       060 AAATTG/TIGTTTATGAATA/STAAGAATGGCCCTAGASTGGGGGCGTGAAACCCAG 3119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2949 FIAATTIATATGIATAIFTTTTAATTTAACATGAAGAGGGTTAGAAAATGTGTGCTATG 3008.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8009 TATCLICCAAALGCAALLGALLGACTGCCCAAAACTTALCCLGAAACTGLICTG 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4249 ACCTCAGAATGTAAAAGAACTTACTGATTATTTCTTCATCGAACTTATGTTTTAAATG 3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2940 INTERGREEALIN TAAGONAN EGAAFIGITAGICATERITATI ALACAAGAITGAA 2999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2829 AAATTGTTGTGTTTHATGGATAGTAAGAATGGGGGTAGAGTGGGGGGTGGTGATAAGGGAG 2888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2009 GOTGTGTGACIACITIGGGTGTTTTGTAGGAIATAGGTGATGTTTGTTTTTA 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            $240 TATCTTCGAAATGCAATTTGATTGACTGCCCAAAAATTATGCTGAAGTTCTTCTG 3299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8069 CAAAAA EGGATATTATTAGAAATTAGAAAATTACTAATTTTACACATTAGATTTAT 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3300 VAAAAAFDSAFALFALFAGAAAFFAGAAAAAFFAGTAATTTAGAGATTTTAF 3359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0129 TITACTATIOGAAICTGATATACTGTGCTTGTTTATAAAAITTTGCTTTTAATTAAA 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COO TELATATIONALCEGALATACISTATACISTATALAAAATITIOSITTIAAAAA 3419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TB9 TAAAAQCTGGAAGCAAAGTATAAGGATAGTATGTATGTAGTAGTGGAAAGAGALTTGAT 3248
CURRENT APPLICATION NUMBER: 08/09/954,531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER, US/60/233,133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPION APPLICATION NUMBER: US/60/234,034 PRION FILLING DATE: 2000 09-20 PRIOR APPLICATION NUMBER: US/60/234,509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILLING DATE: 2000 09-22
APPLICATION NUMBER: US/50/234,567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: IISZKOZZ34, 009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 143, Application BS/09954531
Patent No. 0820020165180A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002 05-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000 09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02 60 0002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US/
PRIOR FILING DATE: 2000-09-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4309 AGGATTATTGATAGT 4324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3540 ASSATIATIOATAGE 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wedzer, Zoe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US 09 954 541 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLITANI:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
```

7 8 8 0	39		1148 1510	1208 1570	1268 1630	328 690	1388 1750	448 810	1508 1870	1568 1930	1628 1990	1688 2050	1748 2110	1808 2170	1868 2230	1928 2290	1988 2350	048
	9 AAALGIGATITCTATITTAACAACTGCACAGTGAATCCAAAGAAGAAGTATCTGAAAA 	G ANTHARANGATATANGATATATTAAAAAAAAAATTTGATAAAAGTGGGAAAAAAA	# TGTCGAAATTGGATCACAGCGAT  - - - - - - - - - - - - - - - - - - -	9 ALCCALCCALCCTAAACAGAAGAAGGATCATCCATTCAAAATTTTAGGAAACTTCTGAA 	PRACAR/AFTITICATAT/GETTTATF/RAYGTGGGCCTTGABGTGTGTAATGGCCACATA LELLELLELLELLELLELLELLELLELLELLELLELLEL	TAGCAGAAG	9. GAALTIGGITAALITAAAAGCCITIGATITTTACAAAGGGATCGAAAGTTTTATCAAAGC 	** AGAAGGTAACTEGAAAAAAAAAAAAAAAAAAAAAAAAAAA	AAGGA            AGGGA	9 POGAGAAGGAPPAGTAGAPAGTHGAAPTGGCTFTTAALCHTCTTCTCTCTCCGGAA PELLETELLETTELLETTELLETTELLETTELLETTELTTELTTELTTELTTELTTELTTELTTELTTELTTELTTELTTELTTELTTELTTCTTCTCTGAAA	# TAAFCACACTGCAGCAGATALGTATCTTCTCCTGTAAGATCTCCAAAGAAAAAAAGGTTC 	9. AACTAGGGGGGTAAATTGTACTGCAAATGCAAAAGAAAGA	9 - YGAGAAGYYALIGAAALGIACCICICHTICACIGITTIAIAAAAAAGIGIAICOCCTAGC 	9 - IALTE SAGIAMATA MITTEGAMOGOTOTOTOTOTOMAGAMOMAMATAMAMATA TELLITI TELLITOMAGOTOTOTOTOTOMAMATAMAMAMATAMA	### FATCATCTGGACCTTTTCCACCACACCCTGCACAAGGAGAGAGA	9 - 37ATT GGANGAAATTATGATGTGTTCCATGTATGCAAAGTGAAAGAGAATATAGA - 1   1   1   1   1   1   1   1   1   1	*********************************	* ATTCAAACSTGTTTGATCAAAGAGAGAGAGTATGATTCTATAAGTATTCTATAACTC 2
1.77		1024	S 47	114	1704	126,	3.3	14 15 10 10 10	144	150	15.64	1:27	1 t 8	174		186.	11.27	158
Ē	5. 5. 13.	55 G	5 <b>±</b>	हैं है	3 3	S 3	:7 <u>=</u>	S 5	S 3	5 5	<u></u>	7 3	等 景	7 =	5 1	항 급	<u> </u>	3

¥⊕⊕ 2049 GGTGTTCATGCAGAGAGTGAAAAAAATATTTTGGAGTATGGTTGCACCACCAGGCCCCTAC 2108 2169 CIISLOANDAMIANNIONAIINNIONGSAASCOOTTACAASTITUOTAGITICACOOTTANG 2168 2169 GATTCCTGGAGGGAACATCTATTTCACCCCTGAAGAGTCCATATAAAATTTCAGAAAG 2228 2591 TOTOCCAACAACAAAAATGAGTGCAAGATGAAGAATGTTAGTATGAATTGGGGAATG 2650 2289 ATTOGGGACTICIGAGAAGTICCAGAAAAIAAAICAGAIGGIAIGIAACAGCGACGIGI 2348 3311 FTAAFTFATATGTAFATTTTTTTAATFTAACAFGAACACCCTTAGAAAATGTGTCCTAFC 3370 3371 TATCTTCCAAATGCAATTGATTGATTGACCAAAATTATCCTGAAGTCTCCC 430 3069 CAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTAGAGATTAGA1111A1 3128 2531 GATTCCTGGAGGGAACATCTAIAITHHHHHHHHHHHHHHHHHHHHHHHHHH 2229 TCTCCCAACACCAACAAAAATCACTCCAACATCAAGAATCTTACTATCAATTGGTGAATT 2288 2589 TGTIACACCTOTGGATTPATTPPTPPTPGAGATGTGAGTGTATAACTTTCCCAGGTTCTG 2648 3071 TGTTTGGGTGATTGCTAAGGCAGTTGAAATGTTAGTGATTGTTATTATACAAGATTGAA 3130 2889 GCCTGTCTGACTACTTTGCCTTCTTTGTACACATATAGGTGATGTTTGCTCTTGTA 2948 3009 TATCTTCCAAATGCAATTTGACTGCCCATTCACCAAAAITATCCTGAACTCTTCTG (068 2829 AAATTGCTGTGTTTATGGATAGTAAAATGGCCTAGAGTGGGGAGTCCTGATAACGAG 2888 2351 ATICAAAGGTGTITTGAIGAAAGAAGAGGAGTAIGATTGTATTATAGTATTGIAIAACTC 2410 2529 TAGMATGGATAMMTAAAGAAGGAAGAAAHGAGGATGTGAGGACOTTGGTGGACAMM 2769 AAPCHGTGTAAAFCCTGCCATTTAAAAAGT1G1AGCAGAT1GTTFCTTCTLCCAAAG1A 2319 GCTCAAAAGAAGTGGTGAAGGAAGGAAGCCTGGTAAARGAGGAGTAGGTTTGA 2649 TTTATGGGGAATTTAAIAFGIICAAGGIGITTITGTGGAIAIAAAATGTGGAGAIGGAA 3011 TTTAIGGCCACATTTAATAICITCAGCTCTTTTIGIGGATAIAAAATGTGCAGATGCAA 2709 memmegenganhechaasecaepheaangitasicalianilalacaacalieaa 3191 AAATFGCTGTGTTTTAFGGATAGTAAGAATGGCCTAGAGTGGGAGTGCTGATAACCAG 2949 TIAATTTATATGTAPATTTTTAATTTTAACATGAGGGCTTAGAAATGTGTGTALA á οy ò ΟŊ ò ď g δŏ ô q Dp ΟŸ q ò q ŏλ QQ ò ŝ ŏ ö

```
q:
                                                                                                                                                                                                                                                       qd
                                                                                                                                                                                                                                                                                                                   <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                  DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                   Ś
                                                             g
                                                                                             ô
                                                                                                                         q
                                                                                                                                                             ò
                                                                                                                                                                                         a
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
               611 ACCICAGAAAGAAAAGAACITACIGATITITITITITITITITITITITITITITITITAAATG 3670
4189 TAAAAAGCTGGAAGCAAAGTATAAACCATATGATACTATGATACTAGTAGTAGAAACAGATTTGAT 3248
                                                                                                                         3249 ACCIPAGAAIGTAAAAGAACITACIGATIATITICITCATCCAACTIAIGITETTAAAIG 3308
                                                                                                                                                                                                                                                                                                                                                                                                               TILLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match 99.7%; Score 3311.8; DB 10; Length 3554;
Hest Local Similarity 99.9%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US, 73, 463, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKEL NUMBER: 01XQ:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUIEK: HWM PC COMPATIBLE
OPEKALING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 7.,2790
SEQUENCE DESCRIPTION: SEQ ID NOT 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 09/026,459
FILING DATE: + 06known,
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESISTRALLON NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                               Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DAIE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                  Sequence 50, Application US/09469522
Patent No. USZ0UZ015[461A]
CENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 4554 base pairs
TYPE: nordele acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEG TO NOT 50:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRICK APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ALDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                Zhou, Yuuli
                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Xo., Honq Ji
                                                                                                                                                                                                                                                                                                                                                                  Bu, Shi Xue
                                                                                                                                                                                           * * O POSTATTATTGATAGE | * 5.2 *
                                                                                                                                                                                                           671 AGGATTAFTGATAGT 3685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ToPoloxY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 4414; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEUGENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           77210-4445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: 110S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CllY: Honston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Hibler,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: IISA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE
                                                                                                                                                                                                                                                                                   US 09 469 522 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05 09 469 522 50
                                                                                                                                                                                                                                                                  PESHLI 6
```

```
969 AAATCTGATTTCCTATTTTACAACTGCACAGGGAAAGGAAAGTAAAAAAG 1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1029 AGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAAGCTGGGGACAGGGTG 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1089 TGTCGAAATTGGATCACAGCGATACAAACTTGGAGTTCGCTTGTATTACCGAGTAATGGA 1148
                                                                                                                                                                                             00 GIGGGGAATCIGIAICITIAIIGCAGCAGIIGACCIAGGIGAIATAIGICGIIICACITIIAC 359
                                                                                                                                                                 129 TGAGGTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTACTAAAAGAAAT 188
                                                                                                                                                                                                                                                              24.9 GTTTGGACTCTTGAGGAAFTGGAAAGGACATGTGAATTTATATATTTGAGACACACAG 308
                                                                                                                                                                                                                                                                                                                                                                                                         809 CAGTICGATATCTACTGAAATAAATTCTGCATTGGTGGTAAAAGTTTCTTGGATCACATT 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  369 TITATIAGCIAAAGGGGAAGIAITACAAAIGGAAGAIGATCIGGIGAITICATTICAGIT 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           429 AATGCTATGTGCTTGACTATTTTATTAAAGTGTGGCGATGTTGCTCAAAAAAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660 AATGCTAIGTGTCTTGACTAITTTAT1AAACTCTCCCCATGTTGCTCAAAAAAAC 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                489 ATATAAAACAGCIGITATACCCATTAATGGITCACCTCGAACACCAGGGGAGGGAAAAA 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      549 CAGGAGTGCACGGATAGCAAAACTAGAAAATGATACAAGAATTATTATTGAAGTTCTCTG 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780 CAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTG B49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   609 TAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTGAAAAATTTTATACC 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          869 IIIIAIGAALIGIGIGGAGIIGIAACATCTAATGGAGTTCCAGAGGTTGAAAATGTTTG 728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            849 AAAAAGTAACCTTGATGAAGAGGTGAATGTAATTCCTCCACACACTCCAGTTAGGACTGT 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                909 TATGAACACTATCCAACAATTAATGATGATTTAAATTCAGCAAGTGATCAACCTTCAGA 96B
                        . 240 GGAGAAAGTITCAICIGIGAATGGAGIATIGGGAGGIAATAICAAAAAGAAAAAGGAACT 299
                                                                        69 GTGGGGAATCTGTATTGTTATTGCACAGTTGACCTAGATGAGATGTCGTTCACTTTAC 128
```

1379	1208	1268 1499	1328	1388	1448 1679	1508	56 79	62	68 91	74	1808 2039	98	92	∞ <del>-</del> -	₹ 1	3 0	G O	വ
ICGAAAITGGATCACAGGAIACAAACITGGAGIICGCITGIA IIA	AAGAAGAA(   )   )   ( )   ( ) AAGAAGAA(	TGACAACATTTTCATATGTCTTAATGCGGGGGGGGGGGG	ATCTCACAATCTTCATTCTCCAACAGATTTGTCTCT 	TTGALTTTTTACAAAGTGATGGAA TTTTTTTTTTTTTTTTTTTT	WTTGACAAGAGAAATGATAAAACATTTAGAAC 	CATGOLIC CAGA FCACCITTATTIGATCHTAT 	JAATCTGCTTGTCCT	AATAIGIAICITICICCIGIAAGAICI 	AACTACGGGGGGAAATTCTACTGCAAATGCAGAGACACAAGAGAAGAAGAAGAAGAAGAAGAAGAAGA	<u> </u>	STATCTCCGGCTAAA 	TATCALCTORACCOTTO CONCONONO CONCONONA CONTROL	SPATTERRAGEAAA TELETITITITITI GPATTERAGEAAA	OSTIAAAIICAAAAICA OSIIAAAIICAAAAICA	ALLCAAACSIGTTTOALCAAAGAGSAGIAIGATICTATTAIAGTTT !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	BOTCH CALGCAGAGACHGAAAACAAATATTIGCAGTA CELLLETTH FILLETH HILLITH THE FILLETH GAGTA	TTGTCACCAATACCTCACATTCCTGAAAGCTT !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	GATICCTGGAGRAACATCTATATCTCACCTGAAGAGROOGATAT 
1321	1149	1209	126.4	1429	148%	1444	150%	1565 1800	16.29 1860	1589 J271	1749	1809 (402	1869 2100	2160	1989	2280	2149	214.9 24 00
÷	첫 교	÷ 4	E =	<u> </u>	송곡	共幸	<u> </u>	چ چ	는 <del>호</del>	ي ج	<u>د</u> ږ	रु क	<u>ن</u> ي چ:	् इ	कृ व	<u>15</u> 4	क्षेत्र स	5 音

	9 TCTGCCAACAACAAAAATGACTCCAAGATCAAGAATTTAGTAGTAGTAGTAGTGAGAATGATGAGAATGATG
C1 C1	54 57
OY 234 Db 258	9 GCTCAAAAGAAGTOCTGAAGGAAGGAAGCTGCTAAAGGACTGAAAAAGGAGGGT115A 2408 TITTITITITITITITITITITI ID GCTCAAAGAAGAAGTGCTGAAGGAAGAAAGAAAGAAAAAAAA
2y 240 Db 264	9 TATTGAAGGAGGAGGAGGGAAGGAAGGAAGTAAAGATCTGGGAGGAGGAGTGGAAATTTGA 2468 111111111111111111111111111111111111
8 8	9 GERGRAAFTEGERAATGACTTETACTEGRACACGOATGCAAAAGCAGAAATGAATCA 2528 
	9 TADPATORATACTICAAAPAAGAAAAGAGAAATGACGATGTOAGGACCTTGCTCGACACTC 2588 
2 2	9 BERNYANTYTARALINALPHETKIKARARARABANISANISHTARAKITINGGARGITETG 2648 
0 0	9 ITTATGGCCACATTTAATATCTTCAGCTCTHIITGTGGATATAAAAIGIGGGGATGCAAT 2708 
, й , й,	9 TGTTTGGGTGATTCCTAAGCCACTTGAAATGTTAGTCATTCTTATTTAT
3 2	O AAPCTTGFFGTAAATCTGCCATITAAAAAGTTGTAGGGGGGTTGTTGCCTCTGCAAAGTA 2828 
ei w	9 AAATTGTEGETTITAEGGAAAAAGGCCCTAGAGTGGGAGTCCTGAIAAGCGG 2888 
	9 OCCUPATOR OF THE STATE OF THE STATE OF THE STATE OF THE STATES OF THE STATE OF TH
2y 294 0b 318	9 TIAATITATATATATITITITAATITAACAIGAACACCCITAGAAAAIGIGICCTAIC 3008 
m m	9 PATCTECCAAATGCAATTGATTGACTGCCCATLCACCAAAATTATCCTGAACTCTTGTG 3068 
Qy 306 Db 330	9 CAAAAAYGGATATTATTAGAAATTAGAAAAAAATTAGTAATTTTAGACATTAGALTITAL 3128 
	1.8
ன் ன்	া ব
	ന ഗ

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             247 HIGHTHOCACHCHCAGAAAHGAAAAGGACAHGIGAACCHATATATATHIGACACAGCC 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  127 ACTGAGCTACAGAAAAACATAGAATCAGTGTCCAFAAATTCCTTAACTAAAAGAA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      187 ALIGALACCAGTACCAAAGTIGAFAATGCTATGTCAAGAGTGTFGAAGAAGTATGATGATGTA 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70 ACHGAGCHAGAGAAAACATAGAAATGAGTGTGGATAAATTGTETAAGTTAGTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0, Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 CLGTGGGGGAALCTGTALCTTLALTGCAGCAGTTGACCTAGATGTGTGGGTTCAGTTTT 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98.0%; Score 4257; DB 10; Longth 3266; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 7, 2502
SEQUENCE DESCRIPTION: SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA: 09/026,459
                                                                                                                                                                                                                               Hu, Ski Xue
Benedict, William F.
Zhou, Yumli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DAIE: 22 Dec-1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM LYPE: Floppy disk
                                                                                                                                              Sequence 34, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 512/418-3000 FELEPAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 4266 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   · Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                  STRFFEL P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Hibler, bayid W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SECURD NO. 34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modelic acid
                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                             APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches (257), Conservative
3309 ACCALDALICALACT 3323
                    *540 AGATTALIGALAGE 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             holody: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                              Patent No. US20020151461AI GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "IIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                               ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME, 'P.F.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15 09 469 522 34
                                                                                                                        135 THY 459-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ouery Mateh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            43
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
```

```
1087 TGTGTCGAAATTGGATCACAGCGATACAAACTTGGAGTTCGTTGTALTACCGAGTAATG 1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1030 TGTGTCGAAATTGGATCACAGGATACAAACTTGGAGTTCGCTTGTATTACCGAGTAATG 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1147 GAATCCATGCTAAAATCAGAAGAACGATTATGCATTCAAAATTTTAGCAAACTTCTG 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1090 GAATCCATGCTIAAALCAGAAGAACGALIAICCATTCAAAATTTTAGGAAACTTCTG 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1207 AATGACAACAFITTCATATGTCTTATIGGCGTGCGCTCTTGAGGTTGTAATGGCCACA 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1150 AATGACAACATTTTCAIAIGTCTTAATGGCGTGGCGTCTTGAGGTTGTAATGGCCACA 1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1267 TATAGCAGAAGTACATCTCAGAATCTTGA11CTGGAAGAATTGTCTTTGAAGATTT 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1327 CTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTATCAAA 1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1210 TATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTTCCATGGATT 1269
                                                                                                                                                  490 AACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAAATTATTGAAGTTCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             607 TGTAAAGAACATGAATGTAATATAGAGGTGAAAAATGTTTATTTCAAAAATTTTATA 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           550 TGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTITATLICAAAAATTTAALA 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             610 CCTTTATGAAATTCTCGAGAGTGGAAGTTGTAACAGGAGTTCGAAAATCTT 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         727 TCTAAAGGATACGAAGAAFTTATCTTAAAAATAAAGATCTAGATGTAATTALTFTG 786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                787 GATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGASAACACACAA 846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    190 ITGITTGCACTCTTCAGCAAATTGGAAAGGACA RGTGAACTTATATATTGACACAAAC
                                         307 AGCAGTICGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAAGITTCTTGGATCACA 366
                                                                                  250 AGCAGTICGAIATCIACTACAAATAAATTCIGCATIGGIGCIAAAAGITTCITGGAICACA 309
                                                                                                                             367 ITITITATITAGCIAAAGGGGAAGTATTACAAATGGAAGATGATGTGGTGATTTGATTTGAG 426
                                                                                                                                                                                                                427 ITAATGCIAIGIGICCIIGACIAITITAIIAAACICTCACCICCCAIGIGCICACAAGAA 486
                                                                                                                                                                                                                                                                                                    487 CCATATAAAACAGCTGTTATACCCATTAATGGTTCAGCTCGAACACCCGAGGCGCGAGGTCAG 546
                                                                                                                                                                                                                                                                                                                                                                                         547 AACAGGACTGCACGGATAGCAAACAACTTAGAAATGATACAAGAATTATTGTATTC 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                667 CCTTTTATGAATTCTCTTGGACTTGTAACALCTAATGGACTTC CAGAGGTGGAAAAAAT 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    670 TCTAAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTG 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  847 CGAAAAAGTAACCTTGATGAAGAGGTGAATGTAATTCCTCCACACACTCCAGTTAGGACT 906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  λo.
                                                                                    q
                                                                                                                                                                    40
:
                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                           ŝ
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

446 506 506 509	62) 68) 74) 80)	749 866 869 926 986 929	046 106 049 109	226 169 229 229 346 406 406
AGAAGGAACTIGACAAGAAATGATAAA TELLELLITITITITITITITITITITITITI TGAALGCCTTGCAGGCCTCCAGATCACAA TOTALLITITITITITITITITITITITITITITITITITIT	ATAATAACACTGCAACAGATATGTATCTTCTCTGTAAGATCTCCAAAGAAAAATATTTTTTTT	ATTACATTATATATATATATATATATATATATATATATA	APATHOAAAGGGGTTTGATGAAAGAAGAGGAGTATGATTGTATTAT	SCAPE SCAPE STAPE STOLE STOLE STOLE STOLE STAPE MATATE
387 ( 330 ( 330 ) 567 ( 450 (	1567 A 1510 A 1520 T 1570 T 1570 T 1570 T 1570 T 1570 T 1570 T	1807 G 1807 G 1750 C 1867 A 1810 A 1927 G	1930 A 2 47 1 1930 A 2 1930 A	2110 0 2227 0 2227 0 22 0 22 0 22 0 22 0 22
\$ <b>8</b> 5 8 5 3	7 d 5 d 5 d 5	1       1       2       3       4       5       5       6       6       7       8       8       9       10       10       11       12       12       13       14       15       16       17       18       19       10       10       10       10       11       12       12       12       13       14       15       16       17       18       19       10       10       11       12       12       13       14       15       16       17       18       18       18       19       10       10       11       12       12       13       14       15       16       17       18       18	3 3 7 9 5 <b>3</b>	8 8 3 5 8 8 8 8 8

```
2527 GATAGCATGGATACCTCAAACAAGGAAGAAATGAGGATCTCAGGACCTTGGTGGACAC 2586
                                                                                                                                                                                                                                                                                                                                                                     2707 ATTGTTPANGARDOINAGORATESTANAKISITASTOATGTATTATAOAAATIS 2766 HILLIHIHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                     2650 ATTGTTTGGGTGATTFCTTAAGGGAGTFGAAFGTTAGTGATGTTATTATAGAGATTG 2709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2210 AAAATCTTGTGTGAAAATCTTGCCATTIAAAAAGTTGTAGGAGATTGTTTGTTGCTGTTGCAAAAG 2769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2947 TATIAATITAIAIGIATATITITITAATITAACATGAACACCTTAGAAAA1GTGTGTA 3005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3557 INCLATION CAAANGCAAMTTGATTGACTGCCCALICACCAAAALLANCOLGAACHOL 3066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2950 TCTATCTTCCAAATGCAATTGAATTGACTGCCATTCACAAAATTATCTGCGAACTGTTC 3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2467 CAGCAGAAACTGGGAGAAATGAGTTGTAGTGGAAGAGGAATGGAAAASCAGAAAATGAAT 2526
                                                                                                                                                                                                                                                                              2647 TGPTTATGGCCACATTTAATATCTTCAGGTGTTTTGTGGATATAAAATGTGCAGGTA 2706
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2767 AAAATOTTGTGAAATOGTGOOATTTAAAAGITGTAGGAGATTGTTGCTGTTGCAAAG 2826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2827 TAAAATTGCTGGTGTTTTATGCATAGTAAAAAGGCTGGGGAGTGGGAGGGGGAGAAGGC 2886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2890 TATTAATTTAIAIGIATATTTTTTAATTTAACAIGAACACCCTTAGAAAAATGTGTCCTA 2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3067 TGCAAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTACACATTAGAITTT 3126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3127 ATTITACTATIGGAATCIGAIAIACIGIGIGCITGTITIAIAAAATTITIGCTITIAATIA 3186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3187 AATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACTACTGAAACAGATTITG 3246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3130 AATAAAAGCTGGAAGCAAAGTATAACCATAIGATACTAICATACTACTGAAACAGAITIC 4189
                                                                                                                   2530 TGTGTACACTCTGGATTCATTGTCTCTCACAGAGGGACTGTATAACTTTCCCAGGTTC
                                                                                                                                                                                                                                                                                                      4070 ATTTACTATCGAATGTGATATACTGIGIGGIIGITITAIAAAAITTTGGIIITAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2770 TANAATISCISTOS TITATOS TANASA BOSOS TANASTESCISTA AVOIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3010 TGCAAAATGGATATTATTAGAAATTAGAAAAATTACTAATTTTGCACATTAGATTTT
                                                                                                                                                                                     2587 IGIGIACACCICIGGATICATIGICICACACAIGIGACIGIATAACITIGGCAGGITC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zhou, Yunli
TITLE OF INVENTION: MODIFIED PETINGBLASTOMA TUMOR SUPPRESSOR
                          Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 88, Application US/29469522
Patient No. US20020151461A1
GENERAL INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3307 IGAGGATTATTGATAGT 3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3250 IGAGGAITATTGATAGT 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
US-09-469-522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š.
                                                                                                                                                                                     ò
                                                                                                                                                                                                                                습
                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ΟŻ
```

```
..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90 TGCAGCAGTTGACCTAGATGAGATGCGTTCACTTTTACTGAGCTACAGAAAAACATAGA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220 GAAAAGAVATGIGAAVITATATATITGACACAACCAACAAGTICGATATCIAACAAAA 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            490 ATTACAAATGGAAGATGATCTGGTGGATTTCATTTCACTTAATGCTATGTGTGCTTGACTA 449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        150 AATCAGIGICCATAAATICTITAACTITACAAAAAAATIGATAGGAGIAGGAAAGTIGA 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          270 GGAAAGGACA IGTGAACT FAFATTTGACAAGGCAGGTTGGATATCTACTGAAAT 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   450 ITFFATTAAACTCTCACCTCCCATGTTGCTCAAAGAACCATATAAAACAGCTGTTATACC 509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 510 CATTAATOOTICAGOTOGAAGAGCGAGGGGGGGGTCAGAAGAGAGGGGGGATAGGAAA 569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    450 TELLALTAAACLUSIDAQOTOOQATGITTGOTCAAAGAACCATATAAAACAGOTGITATAGC 509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    330 AAALICTGCATIOGIGCTAAAAGITICTIGGATGAGATTITITATTAGGIAAAGGGGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97.1%; Score 3226; DH 10; Length 3323;
99.8%; Fred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5; Indels
                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                  ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/469,522
                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE DESCRIPTION: SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: 0T3
                                                                                                                                                                                                                                                                                                 CLASSIFICATION: + Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INPORMATION:
                                                                                                                                                                                                                                                                                  FILLING DATE: 22-Dec 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGIH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    512/418-4000
                                                                                                                                                                                                                                                                                                                                                       FILING DAIE: - Unknown -
AITORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 512/474 7577
                                     STREET: P.O. BOX 4433
                                                                                                                                                                                                                                        PURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     meters acid
                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6,957.
CORRESPONDENCE ADDRESS:
                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMALION FOR SEQ 1D NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InPuloGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 1229; Conservative
                                                                                                                 ZIP: 77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
                                                      CITY: Mouston
                                                                                                 737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
                                                                           STAIR: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.04.A [ [ON:
                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IYPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US 09:469 522 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ourry Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
```

```
990 CAACI GACAGAGAAACCAAAAGAAAGAA MITAGAAAAGAGAAAAA ATAGAAATAAT 1049 HILLIH HIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1050 CITITAAAGAAAATITGCTAAAGFTGGGACAGONTTGTGTGGGAAATFGGATGGATGAGAGGG T109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1050 CITIAAAGAGAAATITGCIAAAAGCIGIGGGAACHGIGGICGGAAATIGGATCACAGCG 1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1110 ATAGAAACTTGGAGTTCGCTTGTATTACCGAGTAATGGAATCCATGGTTAAATGAGAAGA 1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1170 AGAACGATTATCCATTCAAAATTTTAGCAAACTTCTGAATGACAACATTTTTCATATGTC 1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1240 TITATIGGCGTCCCCTCTCACCTTGTAATCGCCACATATAGCAGAAGTACATATCGAGAA 1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1230 ITIATIGGGGIGGGCTCIIGAGGFIGFAATGGCACATAFACAAAHATACATCTCAGAA 1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1290 TCTTGATTCTGGAACAGATTTGTCTTTCCCATGGATTCTGAATGTTAATTTAAAAGG 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1350 CTTTGATTTTACAAAGTGATGGAAAGTTTTATCAAAGCAAAAGGAACTTGACAAAAAA 1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ### HITTER | HITTER |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1590 GTATCTTTCTCTG1G1AGATCTCGAAAGAAAAGG11CAAC1ACAACTGTGTAAATTC1AC 1649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   690 TGTAACATCTAATGGACTTGCAGAGGTTGAAAALITLTCTAAANGATARGAAAATTTA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              750 TOTTAAAAATAAAAGATOTAGATGOAAGAITAITITTGGATOATGATAAAAOTOTTTGAGAO 809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             810 IGATICIAIAGACASITIIGAAACACAGAAGAAGACAGAAAAAGIAAGGAAGAAGA 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            930 AAIGAIGAITITAAATICAGCAAGIGGACCAACCITCAGAAAATCTGAITICCTATITAA 989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     570 ACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATGTAATAT 629
                                                                                                                                                                                                                                                 630 AGATGAGGTGAAAAATGITIAITICAAAAAITITAIACCITITATGAAITGTGAAITGTGAAT
                                                                                                                                                                                                                                                                                                                                                                       630 AGATGAGGGAAAAATGITIAITICAAAAATITIAAACCITFIAAGAAITCTOGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  870 GCTCAATGTAATTCCTCCACACACTCCAGTTAGGACTCTTATGAACACTATTAACAATT 929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
```

5 8		GCAAATGCAGAGACACAACCTCAGCCTTCCAGACCAGAGCCATTGAAATCTAC	
5 <u>5</u>	1710	CICTCTTTCATTGTTTTATAAAAAGGTATCGGCTAGCCTATCTCGGGCTAAATACACT 1769 FILLFILLHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI	
多畫	1770	TIGIGAAGGUTICTGIOIGAGCACCAGAAITAGAACATATCAICIGGAGCGITTTCCA 1829 	
항 중	18 1	GPACACPO IGNADAAHDAACHONDAACHOANGAGACAGAATTHGAACAAAHTAHATTI 1889 FILLELLELLELLELLELLELLELLELLELLELLELLELLE	
等 豊	6 6 2 1	GIGITCCATGTATGGCATATGCAAAGIGAAGAATATAGACCTTAAATTCAAAATCATIGT 1949 	
		AACAGCATACAASGATCTTCCTCATGTTCASGAGACATTCAAAGGTGTTTTGATCAA 2009 	
5 £	2010 2010	AGAAGAGAGTATGATTGTATTATAGTATTGTATAAGTCGGGTCTTGATGGAGAGTGAA 2069 - FELLELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELTETTEL AGAAGAGGAGTATGTATTATATAGTATTGTATAAGTGTGTTGATGGAGGA	
5 =	0707	AACAAATATTTRUCARTATECTTCCACCAGCCCCTACCTTGTCACCAATACCTCACAT 2129 	
3 3	2140	TOCTORAN OCCITACAN UTIFICIALITICA COCTAVORANTOCIOSAS SEGACATOTA 2189	
5 ±	0.11.2 0.11.2	TATTICACCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTGCCCAAGAGGCAAGAAAT; 2249 TITTITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	
8 8	0,77	GACTOSAGATCAAVAATOTTAVTATOSAATGATGAATOAGAAOTTOTOGAAOTTOTAGAAAVIT 2409 EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE	
5 E	2330	OCAGAAAATAAATCAGATAGATAATATAAAGAGAQOGTGAGATAAAAGAAGAGAGAGAAGAAGAAGAAAGAAAGA	
학중	2470	AAGCAANYCIGCIAAANCAGIGAAAAAAGITAGOCTTIGATAITGAAGGATGAGATGAAGG 2429 FELFILLITITITITITITITITITITITITITITITITITI	
g <u>\$</u>	24.10	AGATGGAAGTAACTCCCCAGGAGAGTCCAAATTTCAGGGGAAAACTGGCAGAAATGAC 24	
5 ±	24.90)	ITCTACTCGAACACGAATGCAAAAAGGAGAAGATAGCATGGATGG	
5 3	0557 0357	GGAAGAGAAA LGAGGALCI CAGGACCI I I GGAGGACACTGTGTAGACCTCTGGGATTCATTTG 2609 	
	2610	TOTOTOACAGATGTGACHGTATAACTTTOCCAGGTTCTGATGTATAACCACATTTAATATA. 2669 	
6 g	2673	ITCAGCICTITITGIGGAIAIAAAAIGIGCAGAIGCIATIGGGIGATICCIAAGCC 2729 	
Ų.	25.00	ACTICAAATGTTAGTCAFTCTTATTTTATAGAAGATTGAAAATCTTTGTGTAAATGCTGGCA 2789	

```
3089
2790 ITTAAAAAGTIGIAGGAGATIGIIIGGIGIGGAAAGIAAAAITGGIGGIIITAIGGAI 2849
                                                                                                                                                                                                                                                2970 TTAATTITAAPAGAAPAPPOTTAGAAAATGIGPPPITATOTATOTATOTIOPAALGCAATTIGA 3029
                                                                                                                                                                                                                                                                                                                             2970 PERANTERAGARGAGGCTTAGAAAATGTGTCCTATCTATCTTCCAAATGCAATTGA 3029
                                                                                                                                                                                                                                                                                                                                                                                                                                3030 ITGACIGCCATICACCAAAATIATCCEGAACICITCIGCAAAAATGGATATTATTAGAA 3089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3090 ATTAGAAAAAAATTACTAATTTTACATTTAGATTTTATTAGIATTGGAATGTGAIAI 3149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3090 ATTAGAAAAAATTACTAATTTTAGAGATTTAGATTTTAGTTTTAGTALTGGAALCTGALAI 3149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3150 ACYGYGYGCTYGYYTAIAYAAAAYTYYGCTYYYAAYYAAAAAGCYGGAAGCAAAGYAAT 3209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3210 AACCATATGATACTALCALACTGAAACAGAITICATACCTCAGAATGTAAAAGAACT 3269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3210 AACCATATGATACTATCATACTGAAACAGAITTCAIACCTCAGAATGIAAAAGAACT 3269
                                                                                                                                                                                                                                                                                                                                                                                       3030 PPGACTGCCCATTCACCAAATTATCCTGAACTCTTCTGCAAAAATGGATALTALTAGAA
                                                                                                                                                                2850 ASTARGATIGNOCTAGAGIGGEASTOCTGATAANOCAGGCCTGTCTGACTAGGCTTGCCT
                                                                                                    2790 TTTAAAAAGTTGTAGGAGATTGTTTGGTGTTGGAAAGTAAAATTGGTGTGTGGGGTTTATGGAT
                                                                                                                                                                                                                          2910 PCPPPPGPAGCATAIAGGEGATGTTTGCPTCTTTTTATTTATATTTATATATTTT
                                                                                                                                         TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: FORM:
COMPUTER: 1BM PC compatible
CPEFATIN: SYSTEM: PC-LY:S/MS-DOS
SOFTWAPF: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
ADDRESSEY: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 09/026,459
FILING DATE, "TRKNOWN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Benedict, William F. Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 40, Application Hg/09449522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Hibier, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-469-522-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PESIII 9
                                                                                                                                                                                                                      . oy
                       q
                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                           qu ..
                                                              ò
                                                                                                    qn
.
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
```

```
.
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97 SPTGACCTAGATGACATGTCGTTCACTTTTACTGAGCTACAGAAAAACATAGAAAATCAGT 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               277 ANATOTOAACITATATATTGACACAAAACCAAGTEGAATAICIACIACIGAAATAAATTCT 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          337 GCALLGGLGCLAAAAGLLLCLLGGALCACAFTTTTATTAGCTAAAGGGGAAGTATTACAA 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 457 AAA/TOTOA/OUTOOATOTTAOTICAAAAAACAAAAAAAAAAAAAAAAA 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       577 GAAAAFGATACAAAATTATTGAAGTTCTGTAAAGAACATGAATGTAATATAGATGAG 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          637 GTGAAAAATGTTTATTTGAAAATTTTATACCTTTTATGAATTCTCTTGGACTTGTAAAA 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         697 FOTAATOGACTECCAGAGTIIGAAAAICIIICTAAAGGATAGGAAGAAATIIAICTEAAA 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HOTHING HOUSE AND A STREET HOUSE HER TO THE HOUSE HEAD AND A STREET HOUSE AND A STREET HOUSE AND A STREET AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             157 AATAAAGALGTAGATGGAAGATTATTTTGGATGATGATAAAAGTGTTGAGAGTGT 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              895. AATAAAGATCTAGATGCAAGATTATTTTGGATGATGATAAAAMTCTTGAGACTGATTGT. 954.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       235 CHODACCIAGAIGAGAIGHCACHTACHGAGCTACAGAAAAGAIAGAAAICAGI 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      295 GTCCATAAATTCTTTAACTTACTAAAAGAAATTGATACCAGTACCAAAGTTGATAATGCT 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    217 AEGECAAGACEGEGAAGAAGEAEGAEGETEGETEGEGEGETEGEGGAAATTGGAAAGG 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                475 GOATTGGTGGTAAAAGTTTGTTGGATGACATTTTTATTAGGTAAAGGGGAAGTATTAGAA 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              995 AAAYTELPACECALGIIGGICAAAGAACAIATAAAAQAGGIGTIATACCCATTAAF 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            517 IGTTICACCTICGAACACCCAGGCGAGGTCAGAACAGGAGTGGAGGGATAGGAAAAAACTA 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            775 GEGAAAAALGITTAFITCAAAAATTTTAFACCITTTAFGAATTCTCTGGACTTGTAACA 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     157 GTCCATAAATTCTTTAACTTAAAAGAAATTGATACCAGTACCAAAGTTGATAATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97.1%; Score 3225.4; DB 10; Length 3461;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOFRET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION, SEQ ID NO. 40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Prod. No.
REGISTRALLON NUMBER: 41,071
                                                                                                               TELEPHONE: 512/418-4000
TELEPAX: 112/474 2577
                                                                                                                                                                                                                                                                          LENGIH: 4461 base pairs
                                                                                                                                                                                                 INFORMALION FOR SEQ ID NO: 40: SEQUENCE CHARACLERISLICS:
                                                                                                                                                                                                                                                                                                                          TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 160.0%;
Matches 4226; Conservative 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                76,33
                                                                                                                                                                                                                                                                                                                                                                                                           ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAMEZKEY: CES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.0.C.A.1.1.J.N.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25 09 469 522 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               guery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                چ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \frac{2\pi}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      يَ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>~</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -
```

```
997 ACAGTGAATGCAAAAGAAAGTATACTGAAAAAGTGAAGGATATAGGATACATCTTTAAA 1096
                                                                                                                                                                                                                                        057 GAGAATITTGCTAAAGCTGTGGGACAGGGTTGTGTCTGAAATTGGATGACAGAGAGAA
                                                                                                                                                                                                                                                             1117 CTTGGAGTTCGCTGTATTACCGAGTAATGGAATCCATTAAATCAGAAGAAGAACGA 1126
                                                                                                                                                                                                                                                                                                                                      1177 TIATCCATTCAAAATTTTAGCAAACTTCTGAATGACAAATTTTTCATAGGTGTTTATTG 1236
                                                                                                                                                                                                                                                                                                                                                                                                                        1297 TCTGGAACAGATTGICTITGCCAIGGAIGGGAIGIGCITAAIHIAAAAGCCTTGAT 1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1357 TITTACAAAGTGATCGAAAGTTTTATCAAAGCAGAAGGTGACTTGACAAGAAAAAAATGATA 1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1555 AAACATTTAGAACGATGTGAAGATGAAGAATGATGGGATGGCTTGGATGCTCTGAGATTCA 1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1675 TCTGCTTGTCCTCTTAATCTTCCTCTCCAGAATAATCACACTGCAGAGAATAATCTTGTT 1734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1735 TCTCCTGTAAGATCTCCCAAAGAAAAAAGGTTCAACTACGCGTGTAAAFTCTACTGCAAAT 1794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1795 GCAGAGAGAAAGCTAAGGCTTGCAGACTCAGAAGGCATTGAAATCTACCTCTCTT 1854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1777 CGCCTTCTGTCTGACCACACAGAATTAGAACATATCATCTGACCCTTTTCAGCACACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1837 CTGCAGAATGAGTATGACTCATGAGAGACAGAGACAAATTATGATGTGTCC 1896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1957 TACAAGGATCTTCCTCATGCTGTTCAGGAGACALICAAACGTGTTTGATTAAAGAAGAG 2016
                                     1015 GTAATICCICCACACACCCAGITAGGACIGITATGAACAATAACAATAATGATG 1074
                                                                                                                                                                                                1135 ACAGTGAATCCAAAAGAAAGTATACTGAAAAGAGTGAAGGATATAGGATACATCTTTAAA 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1417 AAACATTFAGAACGATGFGAAGATCGAATGATGGAATGGTTGGATGGTTGTGAAGATFGA 1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1897 ATGTATGGCATATGCAAAGTGAAGAATATAGACCTTAAATTCAAAATCATTGTAACAGCA 1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2035 ATGTATGGCATATGCAAAGTGAAGAATATAGACCTTAAATTCAAAAATCATTGTAACAGAA 2094
937 ATTITAAATTCAGCAAGTGATCAACCTTCAGAAAATCTGATTTCCTATTTTAACAACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1237 GCGTGCCTCTTGAGGTTGTAATGGCCACATATAGAAAAGTACATATCTAGAATCTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1435 TCTGGAACAGATTTGTGTTTTGCCATGGATTGTGAATGTGCTTAATTTAAAAOCCTTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1597 TOTOCHGTAAGATGLGGAAAGAAAAAGGTTGAACTACGGGGGGTGTAAATTCTACTGCAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1657 GCAGAGACACCAACCTCAGCCTTCAAGACCAGAAGCATTGAAATGTAGTCTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1717 TCACTGTTTTATAAAAAGTGTATGGGGTAGCCTATCTCGGCTAAATACAGTTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
1
                                     q
                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                   qq
                                                                                                                                                          ŝ
                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                         곂
                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
```

```
े
                                                                            213) AGGCCTTACAAMITTCCTAGTTCACCCTTACGGAATCCTGGAAGGAAGATATTGCA 2196
                                                                                                                                                                                                                                                                                                                                                                                         2197 CCCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTGCCAACACAAAAAATGACTCCA 2256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGATCAAGAATCITAGIAICAAITGGIGAATCATTCGGGAACITCTGAGAAGITCCAGAAA 2316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            251 CCTCCTAAACCACTGAAAAAACTACGCTTTGATATTGAAGGATCAGATGAAGCAGATGGA 2574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2557 AAATGAQJATCTGAGGAGGTTGGTGGACTGTGTACACCTGTGGALTCALTGTCTCTCT 2616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2635 AAATGAAAATCCAAGACCTTGGTGGACACGTGTGCACACTCGGGATGATGTCATCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26.17 (AGAIGIGACIGIAIAACTITOCCAGGIICIGITIAIGGAGAGATITAATATOTPOAGOT 2676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2255 CAGADU CACHATATAAA TITOO AAGTI TITOO AAGTI TAADAGGGAATTI AATATTAAGGG 2814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2677 CITITIGEGRATATAAAATGTGCAGAATTGTTTGGGTGATTCCTAAGACACTEGAA 2736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2815 CITITIGIGANIATANAATGTGCANATGCAATGGTTGGGTGATGCCIAAGCCACTIGAA 2874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2347 ATGLIAGICALIGITALITATACAACATIGAAAATCTTGTGTAAAATCCTGCCATTTAAAA 2796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2917 IAGGAFATATGGFGTTTGGFGTFTTTTTTTATTAATTTATGTATATTTTTTTAATTT 2976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CONTENCOAAATTATCCTGAACTTTCTGCAAAAATGGATATTATAGAAATTAGAA 3096
                           2095 IACAAGGATCTTCCTCATGCTGTTCAGAGAGACATCCAAAGGTGTTTGATCAAGAGAG 2154
                                                                                                                                                                                 2022 ATTTECASTATGCTTCCACGGGGGGGCGTGTGTCACGAATACGGCACALCCGCGA 2136
                                                                                                                                                                                                             2377 POTONIAAACCACTGAAAAAAGTACGCTTTGATATTGAAAGATGAGATGAAGGAGATGGA 2436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24.47 ARTAAARTOTORGAGRAAGTORAAATTTOAGRAAARTGGOAGAAAATGAATTGAOTTOTAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2875 AIGTIAGICATIGIIATITATACAAGATIGAAAATCITGIGIAAAICCIGCCATITAAAA 2934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2935 AGTIGTAGPAGALTGTTTPPPPPPPPPAAGPGAAATPGPTGPTGTGPTATGGATAGPAAGA 2994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               285. ALGOSOTAGAGGGGGAAAGTOTGATAAAOOOAGAAGTGGAAGAATAATGGGTTGTTTTG 2916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IAGCATAIAGGIGAIGTIIGCICIIGIITITIAIIAAIIIAIAIGIAIAIIIIIIIII 3114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAVATSAACACCTTAGAAAATGTGTOTTATCTATCTTGCAAATGCAATTTGATTGACTG 3036
=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -
```

```
3355 IGAIACIAICAIACIACIACIGAAACAGAIIICAIACCICAGAAIGIAAAAAGAACIIACIGAI 3414
3175 CCCAFFCACCAAAAIIAICCTGAACCTTCTGCAAAATGGATATTATTAGAAATTAGAA 3234
                                            3097 AAAAATTACTAATTTTACACATTAGATTTTTACTATTGGAATCTGATATACLGTGT 3156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                          3217 INGATACTATCATACTGAAACAGATTICATACCICAGAATGTAAAAAAACAACTTACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: MODIFIED RETINOBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 3218;
                                                                                                                                                                                                                                                                                                                                  3277 PATTIFICTTCATCCAACTTATGTTTTTAAA1GAGGATTATTGATAGT 3323
                                                                                                                                                                                                                                                                                                                                                        3415 TAPTTTCTTCATCCAACTTATCTTTTTAAATGAGGALTATTGATAGT 3461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score '212; DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         :
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Pred. No. 0;
live 0, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER - HSZOGZ469, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 22 Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Segmenne 3, Application us/09469522
Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 3218 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE, «UNALOWUS ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRLEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 3212, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Opery Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-09-469-522-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
```

1.2 ANTION TO THE PROPERTY OF A DAMAGE AND CONTRICTORY AND C	15 6 8 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	51 11 7 7 13 3 13 26	91 86 51 46 11 71	66 66 28 11 86 86 46	001 06 07 66 13 13 19 19 08 6
	TICACITIANTICACOTANACAAANTATAGAAATCAGTGGCCATAAATTTTTTTTTT	w 2 4 w 4 w 6 4	AGGGGGGGTCAGAACAGAGGGGGTAGGAAACAACTAGAAATGATACAAGA LLLLILLILLILLILLILLILLILLILLILLILLILLIL	HITTHELLITTEGATCA CATAAACH THITHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	
5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4	11.7	,			95, 84, 84, 84, 84, 84, 84, 84, 84, 84, 84

```
1252 GTGTAATGGCCACATATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAAGTTG 1311
                                                                                                                                                                                                                                                                    1312 TOTITICCATGGATTCTGAATGTGCTTAALTTAAAAGOTTGALLITITADAAGGGATGTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1372 GAAAGTTTTATGAAAGGAGAAAGTTGAMAMAMAMAAAGATAAAAGATTAGAAAMA 1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1432 IGTGAACATCGAATCATGGAATCCCTTGCATGGCTCTCAGATTCACCTTTATTTGATCTT 1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1387 ATTANACAATCANAGGACCGAGAAGGACCAACTGATCACCTTGAATCTGCTTGTT 1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1552 AATCTTCCTCTCCACAATAATCACACTCCAGAGATATGTATCTTTCTCCTGTAAGATCT 1611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1732 AAAGIGTATGSGCIAGCCIATCTCGGGGTAAATACACTTTGTCAACGCTTTCTTCTGAG 1791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HELLIH HELLIH HELLEH HECAGAMAMMANDAMMANDAMMAN 1746.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1927 ATAGTATTCTATAACTCGGTCTTCATGCAGAGACTGAAAACAAATATTTTGCAGTATGCT 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2152 CCTAGTTCACCCTTACGGATTCCTGGAGGAA.ALCTATATTTCACCCTGAAGAGTCCA 2211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HITTHEFFEET CONTROL OF THE FEET OF THE FEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2107 INTAMANTETCAGAAGGTCTGCCAACACCAAAAAATGACTCCAAGATCAAGAATCTTA 2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2272 GTATCAATTGGTGAATGATTGGGGACTTCLGAGAAGLLCCAGAAAALAAALGAGALGGLA 2441
1087 TTTAGGAAACHCTGAATGACATHTTCATATGFCTTTAFFGCGGGCGCGCTGTGACTTA
                                                                                                                                                                             1147 GEFGFAAFGGCCACAFALAGCAGAAGIACAFCFCAAAIGFFGAAFIGFAAAAGALIIG 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1327 TGTGAACATGGAATGALGGAATGCGTTGGATGGCTGTGAGATTGAGGTTAATTTGATGTT 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1672 ACCICAGCCTTCCAGACCCAGAAGCALTGAAALCLACCTCTTTTCACTGLLTTALAAA 1731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1852 GAACTEATGAGAGACAGCATTTGGACGAATTATGATGTTECTTTECATGTATGCATATGC 1911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2212 TAFAAAAFITIGAGAAGGIGTGGGAACACAAGAAAAALGAGTGGAAGATGAAGAAFITA 2271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1207 TOTITOCCAIGGAITCIGAAIGIGCIIAAITIAAAAGCCITTGAITIITACAAAGIGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1492 ATTAAACAA FCAAAGGACGGAGAACGAACTI GA FCAOCTTI GAATOTI GOTTI G FOOT OTTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1912. AAACHGAAGAATATAGACCTTAAATTCAAAATCALEHAAAAGATATACAAGALCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1972 CATGCTGTTCAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAGGAGTATGATTCTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1867 CATGCTCTTCAGGAGACALTCAAACGTGTTLGALCAAAGAAGAGGAGLALGALTCTALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2032 ATAGTATTGTATAAGTCGGTCTTCALGCAGAGAAGAAAGAAATALTTIGTAGTALGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2092 TOCACCAGGCCCCCTACCTTCTCACCALACTCTCACATFCCTCCTCACACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1792 CACCCAGAATTAGAACATATCATCTGGACCCTTTTCCAGCACACCCTGCAGAATGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . q
                                                                                                                                                                             <u>a</u>
                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
C
                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
```

```
zsz aaciiioccaogurononargggaartraarapengegeegenthygrggarara 2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2217 TGTAACAGCCACCCTGTGTGTAAAAAAGTGCTGAAGAAAAAAGAAAAGCAGTG 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2287 AAAAAAQTACGCITIGATATTGAAGGATGAAGGAAGAAGGAAGTAAAAATGTGGGA 2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1452 GGAGAGTCCAAATTTCAGCAGAAACTGGCAGAAATGACTTCTACTCGAAATAGAAA 2511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2407 AAGCAGAAAATGAATGATAGCATGAATATTTCAAA7AAAGAAGAAGAGAGAGAGAGAGAA 2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2572 GAPPTIGGTGGAPAPTGTAPAPPPPPGATTGAPTGTPPPPPPGAGAGAPGTAT 2631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26.2 AACTITOCOAGGICIOTGITAAFGGOON/AITIAAIAIGGIGAGGIGGITTTGGGGGATATA 2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2692 AAAIGIGCAGAIGCAAIIGIIIGGGIGAIICCIAAGCCACIIGAAAIGTIAGTGTIGTT 2751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2752 ATTIALACAAGATTCAAAATCTTGTGTAAATCCTGGGATTTAAAAAGTTGTAGGAGATTG 2811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2872 SAGTOCTGATAACCCAGGCCTGTCTACTTGCCTTCTTTGTAGAATAAAGTGAT 2931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2932 GLIGGIGTTGTTTTATTATTTTTTTTTTTTTTTTTTTAATTTAAGATGAACACGTT 2991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2887 AGAAAAFGTGTATCTATCTICGAAAFGGAATTTGATTGACTGCCCATTCACCAAAAP 2946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8052 FATOTTSAASITSTESSAAAATGGATATTAITATTAGAAAITAGAAAAAAITASTAATTT 3111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4112 FAÇAÇATTAGATTITTATTITTAÇIYATTIĞGAATGTGATATAĞTĞTĞTĞTĞÇITĞTTTTTTTTTATAAAA 3171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3172 TITTGCTITITAATIAAATAAAAGCTGGAAGCAAAGTATAACCATATGATACTATCATACT 3231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2647 AITIAIACAAGATTGAAAATCTTGTGTAAATCCTGGCATTTAAAAAGTTGTAGAGTTG 2706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2992 AGAAAATGTGGGTALCTALGTGCAAAIGGAATTGGATTGATGGAAGGAAATGGAAAAAT 3051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2947 TATECTGAACICTICTGCAAAAAIGGATATTATTAGAAATTAGAAAAAATTACTAATTT 3006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42.32 ACTGAAACAGATTTCATACCTCAGAATGTAAAAAGAACTIAATGATAATTATTTCETCTCATAAA 3291
222£
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2467 ARYCTIGERARAN TGTGTGTAN AYTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTAN AT TGTGTGTGTAN AYTGTGTGTAN AYTGTGTGTGTAN AYTGTGTGTAN AYTGTGTAN AYTGTGTGTGTGTGTGTGTGTGTAN AT TGTGTGTGTAN AYTGTGTGTGTAN AYTGTGTGTGTAN AYTGTGTGTGTAN AYTGTGTGTGTAN AYTGTGTGTGTAN AYTGTGTGTGTAN AYTGTGTGTGTAN AYTGTGTGTGTAN AYTGTGTAN AYTGTGTAN AYTGTGTGTGTAN AYTGTGTAN AYTGTAN AYTGTGTAN AYTGTAN AYTGTGTAN AYTGTAN AYTGTGTAN AYTGTAN AYTGTGTAN AYTGTAN AYTGTGTAN AYTGTGTAN AYTGTAN AYTGTGTAN AYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OFFICE OF TAXABLE AND TAXABLE AND TAXABLE AND TAXABLE AND TAXABANA AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2587 AAAIGIGGAAATGCAATTGTTTGGGTGATTCTTAAGGGAGGTGAAAAAGGTAGTGATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2767 GAGICCIGAIAACCCAGGGIGTIGIGATIAGTIIGGGIITTIIGIAGGAAATAATGAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3292 APTIAIGITITIAAATGAGGATTATTGATAGT 3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    $187 ACTIATGITITIAAATGAGGAFTATTGATAGT 3218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
```

RESULT 11 13-19-469-522-56

```
HILLITELLE HELLE H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       217 AFGTCAAGACTGTTGAAGAAGIAIGAIGIAIGIIIGGGAGTGTICAGGAAATUGAAAAGG 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (97 ATGASARATGAPCTGATTTGATTTGATTAATGATGATGTGTGGTGGTTGATTTATT 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      457 AAACICICAACICCCAIGIIGCICAAAAAAACAIAIAAAAAAAGGCIGTIAIACCCAITAAI 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       127 PONTESTINAMENTALICITICAL SALCACATITITALIAGGIAAAGGGGAAGTATIACAA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       517 GGTTCACCTCGAACACCCAGGCGAGGTCAGAAGAGAGTGCAGGGATAGCAAAGAAGTA 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 ATCHCAAGACHGHTGAAGAAGTATGATGTATGTTTGCACTCTTCACCAAATTGGAAAGG 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       277 ACATGIGAACTIATATATTIGACACAACCCAGCAGTICGATATCTACTGAAATAAATICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    337 GCATTGGTGGTAAAAGTTTGTTGGATCACATTTTTTTTAGGTAAAGGGGAAGTATTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    247 AAACTCTCACCTCCCATGTTGCTCAAAGAACCAIAIAAAACAGCTGTTATACCCATIAAT
                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: MODIFIED RETINGELASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 10; Length 3113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER. 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFIWARE: PatentIn Release #1 0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Journal 100.0%; Pred. wo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93.5%; Score 3107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE DESCRIPTION: SEQ ID NO: 36:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09/026,459
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                               Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
Sequence 36, Application US,03469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PEPEPENCE/COCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 3113 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                       PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY / AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ 1D NO: 36: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2349
                                                                                                                                                                                                           Hu, Shi-Xue
                                                                                                                                                       APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 3107; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-469-522-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  >.
2
```

								ve	vc	c.	<b>.</b>	ی ی		<b>د</b> د	ی ی		د ' ه	æ
366	636 426	696 486	756 546	816 606	876 666	936 726	966 786	1056 846	1116 906	1176 966	1236 1026	1296 1086	1356 1146	1416 1206	1476 1266	1536 1326	1596 <sub>.</sub> 1386	1656
OTTER PER PER PER PER PER PER PER PER PER P	GAAAATGATACAAGAALTAT IGAAGTICICIGTAAAGAACATGAALGTAATATAGATGAG FELLITITETETETETETETETETETETETETETETETETE	SEANAAATGITTATTICAAAAATITTATACGITTTATGAATTCTCTIGGACTICTAACA 	FCTAATGGACTI-CCAGAGGIIGAAAAGCTITCTAAACGATAGGAAGAATITAICTIAAA    -	AATAAAAATCTAGATGGAAGATTATTTTGGATGATAAAACTCTTGAGACTGATTTTTTTT	ATAGACAGTETTGAAACACAGAAACACAGGAAAAAGTAAGGTTGATGAAGAGGGGGAAAT 1111111111	GHAATTOCIPCOOXONOTCOONTTROGROUGHTATGAACACIATCCAACAATTAATGATG UTTELLUTTULE ELLELLUTULE HITLELLUTULE HITLELLUTULE GAATTAATGATG GHAATTOCICCACACACACAGTTAGACTGTTATGAACACIATGCAACAATTAATGATG	ATT.TAAATICGGGAAGTGGACGACGTTCAGAAAATCTGGTTTTCCTATTTTAAGAAGTGG TITTTTTTTTTTTTTTTTTTTTTT	ACAGTGAATCCAAAAGAAAGTAFACTGAAAAGAGTGAAGGATATAGGATACATTTAAA TELLLELLELLELLELLELLELLELLELLELLELLELLEL	GAGAAATTTOCTAAAGTGTGTGGGACAGGGTTGTGTCGAAATTGGATCACAGGGATACAAA 4114441111111111111111111111111111	CTEORACH PGCTECTALL ACCGAGTAA FODAA FCCA EGCT FAAA LCAGAAGAACAAA CA TELLET FELLET FOR A TEGGAGTAA TGCAGA TA	TTAFOCATIO AAAAFTTTABOAAACTTCTGAATGACAACATTTTGATATGTCTTAATG 	GOGTGCOCTCTTGAGGTTGTAATGGCCACATATAGCAGAAGTACACATCTCAGAATCTTGAT 	JCTGSAACAGALITGTCH FCCCATGGALICTGAAFGTGCTFAATFTAAAAGCGTTGGT    -   -	TTTTACAAAGTGATGGAAAGTTTTATCAAAGGAGAGGCAACTTGACAAGAGAAAATGATA TTTTTTTTTT	AAAVATITAGAAGGAIGIGAACATGGAATGATGGAATCGCTTGCATGGCTGTGAGATTCA	CCTITALLIGALCTFALLAAACAA ICAAAGGACGAGAAGGACGAACGAGGACGAAT TELELLILLILLILLIHIHHHHHHHHHHHHHHHHHHHHHH	FCTGCTGTGCTCTTAAFGTTGCTGCGGAAATAATGACAGGGAGAGATATGTATGTT 	PCTCCTGTAAGATCTCCGAAAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAAT
101	5.77	6.47	6.97 4.87	5.47	817	877 667	947	787	1057	1117	96.7	1247 1027	1297 1087	1457	1417	1477	15.47	1547
40	5 G	\$ B	5 8	45	학 표	40	5 3	\$ 4 <u>9</u>	5 3	45 45	45 <del>9</del>	5 3	0.V 13.E	착물	5 3	<del>2</del> 6	5 2	5

```
2107 ATAAATCAAATGATATATAAAA'YAA'AA'STA'STATATATAAAAAAAAGA GAAAAAAAAAAA 2166
                                 1657 GCAGAGACACAACCACCCTTCCAGACCCAGAAGTTGAAALCTACTTTT 1716
                                                                   1447 GCAGAGACACAAGCAACCTCAGGCTTCCAGACCCAGAAGCCATTGAAATCTACCTCTTT 1506
                                                                                                    1717 TCACTGTTTTATAAAAAGTGTATGGGCTAGCCTATCTCGGGCTAAATACACTTTGTGAA 1775
                                                                                                                       1777 - CGCCTTC1GTGAGCAGCCAGAAFTAGAAGA1A1CA1CTGGACCCTTTTCAGCAGCACCA 1836
                                                                                                                                                                                           1837 CTGCAGAATGAGTATGAACTCATGAGAGACAGGTTTGGACGAATTATGATGATGTTC 1896
                                                                                                                                                                                                                                                            1897 ATGTATGGCATATGCAAAGTGAAGAATATAGACCITAAALCAAAATCATGTAACAGA 1956
                                                                                                                                                                                                                                                                                                                                                 1687 ATGLATOGGALAFGGAAAGTGAAGAATALAGAGGILAAALIGAAAALGALATOTAAGAGA 1746
                                                                                                                                                                                                                                                                                                                                                                                  1957 TACAAGGATCTTPCTPATGCTGTTFCAGGAGATTPAAAGGTGTTTTGATPAAAGAAGA 2016
                                                                                                                                                                                                                                                                                                                                                                                                                     2077 ATTITGCAGIAFGCIFCCACCAGGCCCCCTACCTTGTCACCAATACCI JACATICCTCGA 2146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2197 CCCCTGAAGAGTGCAFATAAAA11TGAGAAGGTGTGFFAAFFAAFFAAFAAAAAAGTGTA 2256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1987 CCCCTGAAGAGTCCATATAAAATTICAGAAGGICTGCGAARGAGAAAAAAAAATGACTCCA 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2257 AGATCAAGAATCTTAGTATCAATTGGTGAATCATTCGGGAATTCTGAGAAGTTTTTAGAAATTTTTAGAAAA 2416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2377 CCTCCTAAACCACTGAAAAACTACGCTTTGATATTGAAGGATCAGATGAAGAGATGGA 2436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2227 AGTAAACATCTCCCAGGAGGCCCAAATTTCAGGAGAAATTGGGAAAATTGGAAATTGTAGTT 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2287 GGAACACGAATGCAAAAGCAGAAAATGAATGAATGGATAGCATCAAAACAAAACAAAGGAAAGAS 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1387 TOTCCTGTAAGATCTCCAAAGAAAAAAGGTTCAACTAGGGGGGAAATTGTAGTGGAAAT 1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2137 AGCCCTTACAAGTTTCCTAGTTCAPCCTTIACGGATTIC\TCAAAGAAAAAATTTATATTTA 2194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2437 AGTAAACATCTCCCAGGAGAGTCCAAATTTCAGCAGAAACTGGCAGAAATGACTTCTACT 2496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2617 CAGATGTGACTGTATAACTTTCCCAGGTTCTGTTAATGGCCACATTTAATATCTTCAGCT 2675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2677 CHTHPHOTOGATATAAAATGTGCAGATGCAATHTHTGCTGATTGCTAAGGGACTTGAA 2736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2467 CTTTTGTGGAIATAAAATGTGCAGAIGCAAITGTTGGGGGATGATCCTAACCAGTGAA 2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2017 GAGTATGATT@TATTATAQTATTGTATAAGT@GGT@TGTAGGTAGAGTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2407 CAGATOTGACTGTATAACTTTCCCAGGTTCTGTTTATGGCCACATTTAATATCTTCAGCT
                                                 νς
•
                                                        qc
:
                                                                                                        ŝ
                                                                                                                                9
                                                                                                                                                                          င်
                                                                                                                                                                                                  ď
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \stackrel{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
27.47 ATGITAGTGATTGTTATTATAGAAGATTGAAAATGTTGTGAAAATGCTGCCATTTAAAA 2795
                                                       2587 ASTESTAGNACATESTAGNACTOSTOCAAAGTAAAATTGCTGTGTGTTATAGAATAGA 2646
                                                                                                                                                                                                                                                                                                                                                                                                                        2857 ATOGOCOTAGAGTGGGAGTGCPPGATAAOOOAGGCPPGPGPGGACPACPTGGTPTGCTPTG 2916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2267 AN'AFGAN'AYO'TTAGAAAATGEGEGETALAITHIHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3217 IGATACTAICATACTACTGAAAAAATTTCATAGGGGGAAAGAAAGAAGGTTAGTGAH 3276
                                                                                                                                                                                                                 2797 AGTTGTAGCAGATTGTTTCCTCTTCCAAAGTAGATGGTGTGTTTATGGAIAGTAAGA 2856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACATGAACACCTTAGAAAATGTGTCCTATCTATCTTGCAAATGCAATTGAATTGACTG 3036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3096 ASSTREAM FOR SARAN TATECT GARACTETTET GENARA TERESANA TAGA AND SARAN TAGA AN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4097 AAAAATTACTAATTITACACATIAGATTITATTACTATGGAATCTCATATACTGTGTGT 3156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2887 AAAAAITACTAACACATTAGATTTTATTTTACTATTGGAATCTGATATACTATTGGGT 2946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2947 GCTIGITITATAAAATTTIGCTITTAATTAAATAAAAGCTGGAAGCAAAGTATAACCAIA 3006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3007 IGATACTATCATACTACTCAAACAGATTTCATACCTCAGAATGTAAAAGAATTTACTGAT 306K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127 TATTITOTION ON TONION STORY AND TONION SOLUTION AND A 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARF: Patentin Release #1 0, Version #1 30 CHRRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                   ORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
SIREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER - ng ng/469,520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUIER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Benedict, William F.
Zhou, Yundi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Serpence 42, Application 0S/09469522
Patest No. 0S20020151461Al
SENEKAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROLET NS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 77210-4433
CHAPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT. Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SECUENCES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35 ay 469 522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7:417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESSIL 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ė
```

```
942 TATCCAACAATTAATGATGATTTTAAATTCAGCAAGTGATCAACCTTGAGAAAATCTGAT 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   978-11 CHATITIAA IAACI SIACIASI SAATCIAAAA WAAASITALASTSAAAAOONOT SAAGOA 1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        418 ATCTACTORANI AAATTCT GGATGGTAAAAGI II CII IGGATGACATTTTATTAGG 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              378 TABAGGGGAACTATTACAAATGGAAGATGATCTGGTGTTTCATTTCAGTTAATCCTATG 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               402 TAAAGGGGAAGTATTACAAATGGAAGATGATGTGGTGATTTCATTTCAGTTAATGCTATG 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            558 ACGGATAGCAAAACAACTAGAAAATGATAGAAGAATTATTGAAGTFFCFCTGTAAAGAAGA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   798 AACTCTTCAGACTGATTCTATAGACAGTTTTGAAAACAGAGAACACCACGAAAAAAGTAA 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     858 CCTTGATGAAGAGGTGAATGTAATICCTCCACACACCCAGTTAGGACTGTTATGAACAC 917
                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  738 GGAAGAAWTFATGTTAAAAAFAAAGATTAGATGCAACATTATTHTTGCATGATGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  642 IGAATGTAATATAGATGAGGTGAAAAATGTTTAAAAAATTTTAATGCTTTTAATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             882 CCITGATGAAGGGGGGAATGTAAITCCTCCACACACTGCAGTTAGGACTGTTATGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      438 TGTGGTTGACTATTTATTAAAGTGTGAGGTGCGATGTTGGTGAAAGAAGCATATAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     678 ITCTCTTGGACTTGTAAGALCIAAIGGACTTCCAGAGGTTGAAAAICTTTCTAAAGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              762 CGAAGAAATIIAICIIAAAAAIAAAGAICIAGAIGCAAGATTATIIIIGGAIGAIAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     918 TATCCAACATTAATGATGATTTTAAATTCAGCAAGTGATGAAGCTTGAGAAATGTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                        Score 3006, DB 10; Length 3347;
                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Pred. ww.
                                                          REFERENCE/DOCKET NUMBER: UTXC.506
                                                                                                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION: SEQ 1D NO: 42:
               NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                         TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                             ENCTH: 3347 base pairs
ATTORNEY/AGENT INFORMATION:
                                                                                                                TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 42:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                        STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                          90.5%
                                                                                                                                                                                                       TYPE: nucleic acid
                                                                                                                                                                                                                                              TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 3006; Conservative
                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                       NAME/KEY:
                                                                                                                                                                                                                                                                                                          LOCATION:
                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                               05-09-469-522-42
                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                Hest Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ω̈́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         심
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
```

2 8 7 8 2 8 2 8 2 8 3 8 3 8 3 8 3 8 2 8 3 8 3	AAAAAATITASTIAAAASTASTASAACAAGASTIGIGIGIAAAAT 1	ACT I GGAGT FYGCT I GTATTAGGAGTAATGGAATGCATGCT T THEFT I THEFT I THEFT THE THEFT I GAATGCAT I GGAATGCATTAGGAGT A THEFT I THEFT I THEFT I THEFT I GAATGCATTAGGATTAGGATTAGGAGT THEFT I T	GCAAACTTCTGAATGACAACAT 1	rderetardetettaagstigtaardeceaatatagagaag 1277 	HECCATIGGALLC FOAATOTOCT 1	WITTTATCAAAGCAGAAGGCAA 1	SACATEGAATCATGGAATGCET     	 ASTANTIGATOROCTIGAATOTSGTGTGTGTTAATOTTOCTGGGGGGGGAATAATGAGGC 1577 TELETETETETETETETETETETETETETETETETETET	 					CAAAA CATTGTAACAGALACAAGATGTTCA GCTGTTCAGGAGACATTCAAAGG 1997 	. 4 (4	POTTOCACOAGOCCCTACCTGTCACC 2	. 4
	TATAGGATACATCLLL	38 IGGALGAGAGGAI TITLLITILLI 22 IGGALGAGAGGAI	1158 TAAATOAGAAGAAGAAC HITHITHIHHHHHH TIBZ TAAAHGAAGAAGAAG	- 4	27 50	1 634 TAATITAAAAGCCITTG 				8 ATTGAAA 	1758 OCTABATACACTTIGIG 	1818 - GARTOT FLI FORGORGA 	1878 CCAAATTATGATGTGTT 	1948 CAAAA KATITOTAACAO HILLIHIHIHIHIHI 1962 CAAAA KOATTOTAACAO	1998 JOLELICALCAAAGAAG JULHILLIHILIHILI 2022 JOLELICALCAAAGAAG		ZIIB AAIAGGICACATIGGIC

Oy Dp	2178	AGGGAACATCTATATTTCACCCCTGAAJAGTCCATATAAAATTTCAGAAGGTTTGAAAA 2237 
cy Op		ACCAACAAAAAIGACTCCAAGAATCAAGAATCTTAGTATCAATTGGTGAATTGGGGGAC 2297 
cy ob	2322	TICTGAGAAGITGCAGAAALAAALGGALGGIALGTAACAGGAAAAGGGGGTGTAAAAG 2357 
ç de		ANGLIGCTGANGGANGCANCCTCCTANANCTGANANANCTTGGCTTTGATATTGANAGE 2417 HTTLLTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
cy Dh	2418	ATCAGATGAASCAGATGSAAGTAAACATCTCCCGAGGGGGGCTCCAAATTTCAGGAACT 2477 
çy Db		OGGASAAHGACTIGLACTGGAAGAGGAAHGCAAAAGTAGAAAAHGAATGAATGGA 25.47 
60 00	2538	TACCTCAAACAAGGAAGAAATGAGGATCTCAGGACCTTGGTGGACACTGTGTACACACT 2597 
Q Q		CTGGATTCATGTCTCTCACAGATGTGACTGTATAACTT1CCCAGGITCTGTT1A1GGCC 2657 
oy D	2658 2682	ACATITAATATCIICAGCICTITITGIGGATATAAAATGTGCGGATGCAATCITGGGF 2717 
ço qu	2718	GATTCCTAAGCACTTGAAATGTTAGTCATTGTTATTTATAGAAGATTGAAAATCTGTG 2777 
Q.y D.b	2778	TAMATCCTGCCATTAMAAGTTGTAGCAGATTGTTCCTCTTCCAAAGTAAATTGCTG 2837 [HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Oy		10CTTTATOGATAGTAAGAA10GCCCTAGAGTGGGAGTCCTGATAACCCAGGCCTGTGTG 2897 
ç Op	2898	ACTACITTGCCTCTTTGTAGCATATAGGTGAGGTTTGCTCTTGTTTTATTAATTTAT 2957   HILLITTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTH
oy Db		AIGTATATTTTTTAATTTAACAIGAACACCETTAGAAAATGIGICCIATCTATCTTCA (017 
cy Oy	3018	AATGCAATTTGATTGACTGGCCALICACCAAAATTALCTGAACTCTTCTGCAAAAATGG 4077   HEEFILLEETTGATTGACGCCATTCACCAAAATTATCCTGAACTCTTGTGCAAAAATGG 4101   AATGCAATTGATTGACGCCATTCACCAAAATTATCCTGAACTCTTGTGCAAAAATGG 4101
ò a	3078	AIATTAITAGAAATTAGAAAAAAAATTAGTAAFTTTAGAATTTAGATTTTATTTTAGTATTT 3147 
da Db	3138	GGAAFCEGATATACTGTGTGCTTGTTTATAAAATTTTGCTTTTAATTAA
ολ Op	3198	

```
٧٥٠
                                                                                                                         ्रवात :
                                                            â
                                                                                                                                                                                                                                                    습
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ê
                                    2
                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                    ã
                                                                                                                                                                                                                                                                                                                  43
                                                                                                                                                                                                                                                                                                                                                                               90
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
              4258 TGTAAAAGAACTTACTGALTATTTTCTTCAACTTATGTTTTTTAAATGAGGATTATT 3317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        129 DAGGERABAAAAAAAAAGAGGEGGATAAATTCTTTAACTTACTAAAAGAAAT 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4; Indels 171; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TILE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89.0%; Score 2956.6; DB 10; Length 3383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                            OORRESPONDENCE ADDRESS:
ADDRESSDE, Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 41,071
REPERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: HS/209/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: 1BM PC compatible OPERALING SYSTEM: PC-DGS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IGCALLON: 7..2619
SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 09,726,459
                                                                                                                                                                                                                                                    Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DAIR: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                     Segrence 4F, Application US/09469522
Patest No. US20020151461A1
General inFoRMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: 512/418-3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                     PROTETINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 3383 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: <Unknown>
ALTORNEY/AGENT INFORMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMALION FOR SEC ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNFSS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94.78,
                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 77210-4433
                                                                                                                                                                                                                        Xa, Hong Ji
                                                                                                                                                                                                                                       Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 3140; Conservative
                                                                                                                                                                                                                                                                                                                  NUMBER OF SECTENCES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                             CliY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                             ×
                                                            1418 GATAGT 1323
                                                                                           1042 GATAGE 9347
                                                                                                                                                                                                                    APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEALURE
                                                                                                                                         RESULT 13
US 09 469 522:48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US on 461-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Coery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100cm
                             ä
```

```
1209 TGACAACAFTTTTGATATGTTTTATTGGCGIGGGGIGTIGAGGTTGTAATGGCCACAIA 1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     969 AAATCTGATTTTCCTATTTTAACAACTGCACAGTGAATCCAAAAGAAGTATTAGTGAAAAG 1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1029 AAAICTGAITICCTATITTAACAACTGCACAGTGAATCCAAAAGAAAGTATACTGAAAAG 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1029 AGTGAAGGATATAGGATATATTTAAAGAAAATITGCIAAAGGTGFGGGACAGGTIG 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1089 THICGAAAIFGAATCACACACAAACIFGGAGIFGGCIIGTAIACCGAGIAAIGGA 1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1149 IGEGAAATEGATCACAGGATACAAACTIGGAGIICGCIIGIATTACCGAGIAATGGA 1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1149 ATCCATGCTTAAATCAGAAGAAGGATTAFGCATTCAAAATTTTAGCAAACTTCTGAA 1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1209 ATCCATGNTTAAATNAGAAGAAAGGATTAIGGAIIGAAAAITITAGGAAAGITGGAA 1268
                                                                                     360 TGAGCTACAGAAAACATAGAAATCAGTGTGTCCATAAATTCTTTAACTTACTAAAAGAAAT 419
                                                     189 TOATANYARIANYAARII POATAATONIAARIAAAAAYIGITGAAGAAGIAIGAITI 248
                                                                                                                                                                          249 GITTGGAGTGT GAGGAAATTGGAAAGGAGALGTGAAGTTAFAFAFFFGAGAGAAGGGAG 308
                                                                                                                                                                                                            309 CAGTTCGAIAICTACTGAAAIAAATTCTGCATTGGTGCTAAAAGITTCTTGGATCACATT 368
                                                                                                                                                                                                                                                                                                                                                          540 CAGTTCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGALCACATT 599
                                                                                                                                                                                                                                                                                                                                                                                                                   429 AAMGCTATGTCCTTGACTATTTTATTAAACTGTGAGCTGGGATGTTGGTGAAAGAAGC 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660 AAJGCTAIGTGTCCTIGACTAITIIAIIAAACTCTCACGTGCCCAIGTTGCTCAAAGAACC 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               489 ATAINAAACNGCIGITAIACCCALIAAIGGIICACTIGAACAGCGGGGGGGGGGGAGTCAGA 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 549 CAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAGTTGTGTG 698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     731 --GGTGGAATTCTCTTGGACT1GTAACATCTAA GGACTTCAGAGGTTGAAAATCTTTC 788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              729 TAAAN MATA MAAMBAAATITAIGITAAAAAIAAAAAIGIAAAIGGAAGAIIAIITIIBAA 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 849 TCATGATAAAACTCTTCAGACTGATTCTATAGACAGIIIIGAAAACACAGAGAACACACG 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             909 AAAAAGTAACCTTGAAGAAGTGAATGTAATTCCTTCACACACTCCAGTTAGGACTGT 968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            909 TATGAACACIAICCAACAATIAATGATGATITIAAATICAGGAAGIGAICAACCITCAGA 968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720 ATATAAAACAG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            731 -----
```

388 388 448 448 508 508	0 1 1 2 2 2 4 4 3 3	568 428 428 488 488 488 488	008 68 68 222 228 388 888 448 148
THECCALGALICT	ANDIACYAACTGALCACTTGAALCTGCTTGTTGCTTTAATCTTCTTCTGCGGGAA 15 ANGGACCAACTGATCACCTTGAATCTGCTGTGTTGTTTTTTTT	LATCHCROCCIAAATACACHTIGIGAACGCCTTCTGTGTGGAGCACGATTAGAACA 188 ALFARCTGTGTGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	1
1 1 1 2 2 3 1 1 1 1 1 2 2 3 1 1 1 1 1 2 3 3 1 1 1 1		1809 G 1869 T 1869 T 1929 G 1929 C 1989 A	2049 C 2004 C 2109 C 2109 C 2159 C 2229 C 2289 C 2289 D 2449 D
5 4 5 4 5 4 5 B	5 3 5 2 5 3 5 3 5	2 5 2 5 2 5 2 5	8 8 8 8 8 8 8 8 8 8

```
2409 TATTGAAGGATCAGATGAAGCAGAAGTAAAGTAAACATCTCCCCAGGAGAGTCCAAAATTTCA 2468
                                                                                 2529 TAGCATIGGATACCTICAAACAAGAAGAGAAATGAAGATCTICAGACTTIGGTGGACACTIG 2588
                                                                                                                                                                                                                                                         2589 IGIACACCICIGGALICALIGICICICACAGAGAGATATAACTITICCCAGGTICTG 2648
                                                                                                                                                                                                                                                                                                                         2649 ITTATGGGCACAITIAATAIGITCAGGTCIITITGGATAIAAAATGTGCAGATGCAAAT 2708
                                                                                                                                                                                                                                                                                                                                                       2709 TITALGGCCACATITAALAICTICAGCICITITIGIGGALAIAAAAIGIGGAGATAGAAA 2768
                                                                                                                                                                                                                                                                                                                                                                                        2709 TGTTTGGGTGAFTCCTAAGGCACTTGAAATGTTAGTATTALTTATAGAAGATTGAA 2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2889 GCCTCTCTCACTACTTTGCCTTCTTTGLACTATAGGTGALGTTLACTGLTTTTA 2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2949 ITAATITATATGTATATITTITAATTTAACATGAACGCTTAGAAAATGTGTGTATC 3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4129 CAAAAATGGATATTATTAGAAATTAGAAAAAAATTACTAATTTTACACATTAGATTTAT 3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3249 ACCICAGAATGTAAAAGAACTTACTGATTALTIICIITCAIGGAACTIAIGIITIIAAAIG 3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2769 AATCTTGTGTAAATCCTGCCATTTAAAAAGTTGTAGCAGATTGTTGCTCTTTCCAAAGTA 2828
                                                                                                                                                                                                                                                                                                                                                                                                         2829 AATCTTGTGTAAATCCTGCGATTTAAAAAGTTGTAGCAGATTGTTFCCTCTTCCAAAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3009 TATCTTCCAAATGCAATTTGATTGACTGCCCAATTCACCAAAATTATCTGAACTCTTGTG
2349 GCTCAAAAGAAGTGCTGAAGGAAGGAACCTCTTAAACTACTGAAAAAACTACTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2829 AAATTGCTGTGTTTATGGATAGTAAGAATGGCCCTAGAGTGGGAGTCCTGATAACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8069 CAAAAATGGAFATTATTAGAAATTAGAAAAATTACTAATTTTAGACATTAGATTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3129 ITIACTATTGGAAICICAIATACTGTGTGTTTTTTTTAAAATTTTGCTTTTAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ) Sequence 46, Application US/09469522
; Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3309 AGGATTATTGATAGT 4323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3369 AGGATTALICATAGI 4383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-469-522-46
                                                                                                                                                           qq
                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                       <u>a</u>
                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>.</u>
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                ŝ
                                                                                             a
                                                                                                                             ò
                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

FILMOR SUPPRESSOR	POSTORER OF TESTINGUES 4, TIMELS 177, CORPS

Qy	369	ITTATTAGCTAAAGGGGAAGTATACAAAIGGAAGAGGATGTGGGIGATTTCAGIT 4	78
qn	549	\$	948
ô	429	AATGCTATGTGTCCTTGACTATTTAAAACTCTCACCTCCCATGTTGCTCAAAAAA'C 4	88
qa	549	<u>S</u>	848
QY	489	489 AFATAAAACAGCIGTTATACCCATTAATGGTTCACCLGGAACACOCAGGGGAGGCAGA 548	548
ব্যু	549		102
ολ	5.4°	CAGAGTGTATATAGTAAAACAACIAGAAAIGAIACAAGAATIATIGTGTGTG 6	809
थुल	603	PAGGAGIOPATGATAGTAAAAAAATGAAAATGATAGAAGAATTATTGAAGTIGTGTG 6	79
δλ	609	TAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTAATACC 6	60
ąd	46.2	TAAAGAATGAATTTTATTTTTTTTTTTTTTTTTTTTTT	21
$L_{ij}$	55.4	TITTATGAATTETETTSSACTFCTAASATGTAATGSACT. DOAGASST GAAAA. C. T. C. T.	т П
qq	723	TITTATGAATICICTIGGACTISTAACAICIAAIGGACTICCAGAGGIIGAAAAICTITC 2	82
Š	527	IAAA WATA WAAAA MAAAA III A MAAAAA AA MAAAA WA WAAAA WAAAAAAAAAA	88
يڊ	783	TAAAGSATACGAAGAAATTTATGTTAAAAATAAGATGTTGTTTTTTGGA 8	C#
3	789	ICAEGAIAAAACICIICAGACIGAIICIAAGACAGIIIGAAACACAGAGAACACCACG 8	848
qq	843	TCATCATAAAAATCTTCAAATGATGATTCTATAGACACTTTGAAAAAAAA	2.0
QY	849	AAAAAGTAAGTTGATGAAGGGAATGAATTGCTGCAGAGAGTCAGTTAGGACTGT 9	808
윧	* U b	AAAAAGITAH CITTATTATATATTATTATTATTATTATTATTATTATTATT	Ę
λō	606	TATGAACACTATCCAACAATTAATGATGATTITAAATICAGGAGAGATGATCAAGGGGAGAGGAGA	9.4
qu	963	TATGAACACTATCCAACAATTAATGATGATTTTAAATTCAGGAAGTGATCAAGCTTCAGA 10	022
ੋਂ	969	AAABCEGATIICOTATIITAACAAOTGOAOAGAAAGAAAAAAAAAAAAAAAAAAAAAA	870
qq	1023	AAATETGAITTECTAITTTAACAACIGCACAGGAATGCAAAAGAAAGTATACTGAAAG	0.82
QY	1029	ACCIONA DE CONTRA DE	880
È	1683	ANTHARAGAIAIANANAIAAATIIIAAANAAAAAIIIGHIINIIIIIGHIINGAAAGAAAAAAAAAA	다. 편
ò	1089	TGTGGAAATIGGATGAGGATACAAAATIGGAGTTCGATTGTAFTAGTAGTAAGTAGGA 1	148
qu	1143	TOTOGAAATUGGATGAAAGGAAAGTTAGAAGTTGGAGTTGGATTAGGGAGTAAGGAA 1.	202
Qy	1149	ATGCAGGTPAAATGAGAAAAAAAAATTATGCATTCAAATTTTAGGAAGTITGGAA T.	807
qq	1203	ATOTATOHTAAATAAAAAAAAAAAATIATOGATIGAAAATTITAGGAAACTICIGAA 10	262
Οÿ	1209	TGACAAGATTTTTGATATGTCTTTTATLGCGGCGCGCGCTGAGGGGGGGGATA E	268
qa	1263	IGACAACATITITCAIATGICTITATTGGCGTGTTGTGGAGTGGCGACAIA	3.22
Qy	1269	TAGGAGAAGTAGATGTGAGAATGTGGAAGAGAGATTGTGGGATGTTGGGATGTTTGTGT 1	3.28
qq	1323	TAGCAGAAGTACTCAGAATCTTGATTCTGGAACAGATTTGTCTTTCCATGGATCTT	382
οy	1329	GAATGEGCITAATTTAAAAGCETTGATIITIACAAAGIGATGGAAGTTTTATCAAAGG	388
qq	1383	GAATGTGCTTAATTTAAAAGCCTTTGATTTTACAAAGTGATGAAGGTTTATCAAAGC 1	442
Qy	1389	AGAAGGCAACHGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACATCGAATGATTTTTTTT	448
qq	1443	AGAAGGCAACTIGACAAGAAAATGATAAAACATITAGAACAATGTGAAAATTGAAATT 1	502

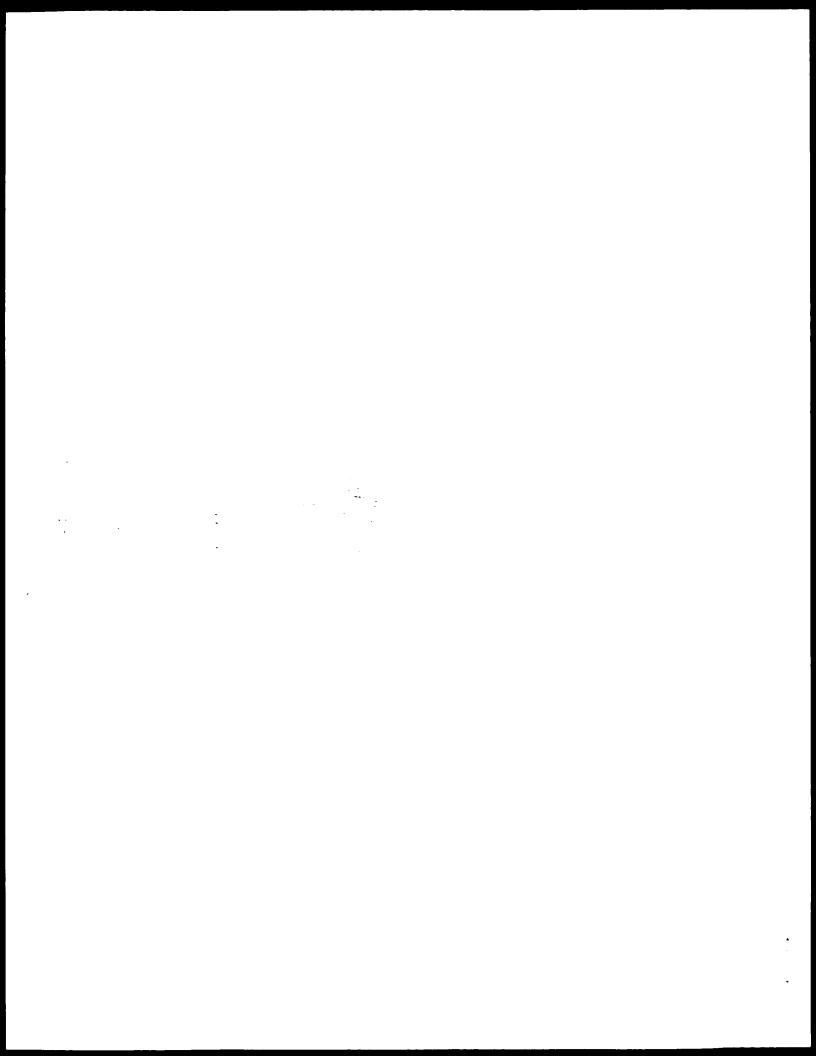
```
THILLETTELLETTELLETTELLETTELLETTELLETTECTTCCTCATGCACCGCACC 2042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HELLITH HELLIT
                                                                                                                                                                                                                                                                                                     1569 TAATCACACTGCAGCAGATATGTATGTTTGTCGTGTAAGAATCACAAAAAAGGTTG 1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  204 - ATECAAACGGTTTGALCAAAQAAGAGGAGTATGTTTTTTTATAGTATTCTATAACTC 2102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2403 OCHGAAAAAAGIGGIGAAGGAAGAAGCIGCIAAAAGACIAAAAAAGIACGCTTIGA 2462
1449 GGAATCCCTTGCATGGCTCTCAGATTCACCTTTATTTGATCTTATTAAACAATCAAAGGA 1508
                                                                                                                                                1509 PPAGAAGSACAANAALGAALGAATTIGAATGTGTGTGTGTGTTAATGTGTGTGTGTGTGAGAA 1568
                                                                                                                                                                                                                                                                                                                                                                                 1629 AACTACGGGTGTAAATTCTACTGCAAATGGAGAGACACAAAGCACAGGGTGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1/68.1 AACHARGROIGHAAATHCHAMFRCAAAHGCAGAGGAGGAAGGTCAGGGTTGCAGAG 1742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1689 COAGAAGOGALIGAAAFOLAGGIGTGTILGAGIGTITFATAAAAAAGIGIATGGGGTAGG 1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1749 CTATCTCTCTGGGTAAATACACTTTGTGAACGGGTTCTGTGAGGGACGGAGAATTAGAAGA 1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1809 TATCATCTGGACCCTTTTCCACCTGCCTGCAAATGAGTATGACTCATGAGAGACAG 1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1863 FATCATCTGGACCCTFTTCACCACACCTGCAGAAIGAGTATGAACTCATGAGAGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1869-00ATTTGGACCAAATTATGATGTTTGCATGTATGGCATATGCAAAGTGAAGATATAGA 1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1924 GCATTEGACCAAATTAFGATGTGTTCCATGTATGGCATATGCAAAGTGAAGAATATAGA 1982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1929 COLLAAALICAAAATCALIGLAACAGCALACAAGGALCITCGICATGCTGTICAGGAGAGT 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1989 ATTCAAANGTGTTTTGATGAAAGAAGAGGGGTATGATTGTATATAGFAFFGTATAAGTG 2048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2049 OCTOTICALGGAGAGACIGAAAACAAATAITTIGCAGTAIGCTIGGAGGAGGGGCCCCTAC 2108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2109 CITGICAMANAMIACTCAMATICTICGAAGGCCTTACAAGTTTCCTAGTTFCAGCTTAGG 2168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2169 GATECCEGGAGGAACAECTATATTECACCEGEGAAGECCATAIAAAAFFECAGAAGG 2228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2283 TOTGOCAACACAACAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAATC 2342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2289 ATTORGGACTICTGAGAAGTICAGAAATAAATGAGATGTATGTAAGAGGGGGGGTGT 2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.449 GCTCAAAAGAAGTGCTGAAGGAAGGAAGTEGTIAAAGGACTGAAAAAAAGTAGGTTTGA 24.08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2409 - FALLGAAGGALGAGATGAAGGAGAAGTAAAGGATGTGGGAGAGAGGAGAA PITGA - 2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2463 TAITGAAGGATGAGATGAAGGAGGAGGAAGTAAAGATGTCCCCAGGAGAGTCCAAATITCA 2522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2459 GYAGAAAYIGGGAGAALGAGIIGIACIGGAAGAGGAAIGGAAAAGGAAAAYGAAYIGA 2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2529 TAGGATGGATASCHCAAAGAAGAAGAAATGAGGATGTCAGGAGGTIGGTGGACACTG 2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       충출
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                    5
                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                             تِ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       - 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \frac{1}{2}
```

```
2589 TGTACACCTCTGGATTCATTGTCTCTCACACTGTGACTGTAACTTTCCACATTGTG 2648
                                                                                                                                                                                         2769 AATCTIGEGIAAATCCTGFCATTIAAAAATIGIAGFAGATIGITICCIFTFFFFFFFF 2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8249 ACCICAGNATGIANANGANCTIACIGATIATITICITCATCOAACTIATGITITIAAATG +308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2823 AATCTTGTTAAATCCTGCCATTTAAAAGCTTGTAGCAGATTGTTTCCTCTTCCAAAGTA 2882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2763 TGTTGGGGTGAFFCCTAAGCCACTGAAAFGTTAGLCALGGILALIALIAAGAAACAACATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HILLEHTHILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILHITTILHITTILLHITTILHITTILLHITTILHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHITTILLHIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2649 ITTATGGGGAGATITAATATGTGTGTGTTTTTGTGGATATAAAATGTGGAAGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                           2703 TETATGGCCACATTIAATATGTTCAGGTCTTTTGTGGATATAAAATGTGAAATGCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2829 AAATIGCIGIGIIIALGGAIAGIAAAAAAKGGCA LAGAGIGGGAAGICGGAAGICGIGAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2889 GCCTGTCTGACTACTTTGCCTTCTTTTGTAGGAIAIAGGTGAIGTTGCTCTTGTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2949 TTAATETATATGTATETTTTTTAATETAACATGAACACCCTTAGAAAATGJGJOCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8009 TATCTTCCAAATGCAATTTGATTGACTGCCCATTCACCAAAATTATCCTGAACTCTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8069 CAAAAATGGATATTATTAGAAATTAGAAAAAAATTACTAATTTTACACATTAGATTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1189 TAAAAGCTGGAAGCAAAGTATAACCATATGATACTAFGATACTACTGAAACAGATTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3123 CAAAAATGGATATTATTAGAAATTAGAAAAAAATTACTAATTTACACAJTAGATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Boredict, William F.
Zhou, Yunli
IIILE OF INVENTION: MoDIFIED KETINGGLASTORA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COKRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & DUTKEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3309 AGGALFAFIGATAG1 3323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3364 AGGATTATTGATAGT 3477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pafent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-469-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 44,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
```

```
Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            959 AAGGIIPAGAAAIGTGATITTCCTATTTTAACAACTGGAGAGGAAATGCAAAAGAAAAGTA 1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7 47 TAGGACIGITATGAACACTAICCAACAAITAAATGAIGATITTAAATICAGCAAGIGATG 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   479 TCAAAGAACCATATAAAACAGCTGIIAIACCCATIAATGGITCACCICGAACACCGGGC 538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 *? AAGTTOTOTGTAAAGAACATGAATGTAATATAAATGAGGTGAAAAAATGTTTATTTCAAA 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TATITITICALGALGALGALAAAAGTGTTGAGAGTGATTCTATAGAGAGTTTTGAAAGAGAG 838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3AAMAAMAAAAAAATAAAMTTGATGAAAGGGGAAAATGTAATTMGTGGAGAGAGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   57 GAACACGADGAAAAAGTTAACCTTGAAGAGGGTGAATGTAATTCCTCCACACTCCAG 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HAGGICAGAACAGGAGIGCACGGAIAGCAAAACAACIAGAAAAIGAIACAAGAAIIAIIG 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       477 GAGGTCAGAACAGGAGGGACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTG 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                659 ATTITATACCITITATGAATTTTTGGATTTGTAACALCHAATGGACTTCCAGGGTTG 718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               214 AAAATCTTTCTAAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGAAGAT 778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    599 AAGLICLICIGRAAAGAACAIGAATGIGATGAGGTGAAAAAAGTGTGTATATTGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11AGGACTGITATGAACACIATCCAACAATTAATGATTTTAAATTCAGCAAGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85.1%; Score 2827.4; DB 10; Length 3161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ं
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11, Indels
                                                                                                                         SUFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: HIDLEY, DAVID W.
REGISTRATION NUMBER: 41,071
REFERENCE/PROCKET NUMBER: UTXC:506
                                                                                                                                                                         APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 0;
                                                                                                   CPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE DESCRIPTION: SEQ ID NO: 44.
                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09,026,459
21P: 77210-4433
COMPULER READABLE FORM:
MEDIUM FYPE: Floppy disk
COMPULER: 1HM PC COMPATIBLE
                                                                                                                                                                                             FILLING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGIH: 3161 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                      512/418-3000
                                                                                                                                                                                                                                                                                         FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACIERISTICS:
                                                                                                                                             CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7..2397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FPPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US 09 469-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mat. Tues 2834;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ÷
```

```
1798
                                                                                                                                                                                                                       1877 TOTATAACTOGGTOTTOATGOAGAGAGTGAAACAAATATITTGCAGTATGCTTOGACCA 1936
1019 TACTGAAAAGAGTGAAGGATATAGGATACATCTTIAAAGAGAAATTTGCTAAAGSTGTGG 1078
                                                                                             1079 GACAGGGTTGTGTGGAAATTGGATGAGAGGGATACAAACTTGGAGTTGGGTTGTATTAGG 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1337 AATCAAAGGACCGAGAAGGACCAACTGATGAACTIGAATCTGAATGTGCTTTTG 1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1397 CTCTCCASAALAATCACACLGCAGCAGATALGTALCTTCTCCTCTGTAAGATCTCCAAAGA 1456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1619 AAAAAGGTTGAAGTAGGGGTGTAAAT GTAGTGCAAATGCAGAGACACAAGCAACCICAG 1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1919 AGAATATAGACCIIAAAIICAAAAICAIIGIAACAGGAIACAAGGAICIICCICAIGCIG 1978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1257 AGAATATAGAGCTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCTG 1816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1979 THEAGGAGAEATTGAAAGGTGTTTTGATGAAAGAAGGAGTATGATTGTALTATAGTAL 2038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2039 TOTATAACTIOGGTOTTOATGCAGAGTGAAAACAAATATTITGGAGTATGCTTOGAGA 2098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2099 GSSSSSCIAVIIGICACGAAGAAICAGIICAGAAGGGGTIAGAAGIITCCIAGII 2188
                                             857 TACTIGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAGCTG1GG 915
                                                                                                                       1139 GARTANDAATOGATGATGATTAAATGAGAAGAAGAAGGATTATGGATTTTTAGGA
                                                                                                                                                                                                                                                                                                                                                                                       1259 TOGCCACATATAGGAGAAGTACATGTCAGAATGTTGATTGTGGAAGAGATTTGTGTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                        1739 AIGGGIAGCHAICHCGB'IAAAIACHIIGIGAACGCTICTGICTGAGCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1817 TICAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAGAGGAGTAGATGATICIATIATAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1379 TIATCAAAGCAGAAGCAACTIGACAAGAAATGAFAAAACAIFIAGAACGAIGIGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1439 ATCGAATCATGGAATCCCTTGCATGGCTCTCAGATTCACCTTTALTTGATCTTALAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1499 AATCAAAGGAGGGAGGAGGAGGACHGATCACTTGAATCTGGTTGTGGTGTTAATGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1679 CCTTCCAGACCCAGAGCCAFIGAAAICTACCTCTCCACTCTTTATAAAAAAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1577 ATCGGCIAGGCPATCFCGGGCIAAATACACHTFGFGAACGCCFFCFGTCFGACGAGCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1637 AATTAGAACATATCATCTGGACCCTTTTCCAGCACCCTGCAGAATGAGTATGAACTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1859 TGAGAGACAGGCATTTGGACCAAATTATGATGTTTCCATGTATGGCATATGCAAAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ģ
                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
```

3238	######################################	+117	1,
3178 3016	* TANATTITATTITACTATIGGAATCIGAIAIACIGIGCITGITTATAAAATTITGCT 	(567	S 4
3118	AACHCH COCAAAAA OGALAHAHAGAAA HAGAAAAA TACACATTA AGAGATACACATTA AGAGATACACATTA ACACATTA CACATTA CACATTA CACATTA CACATTA CACATTA CACATTA CACATATTA CACATTA CACATATTA CACATATATTA CACATATATA CACATATATAT	305 2897	يہ ج
3058 2896	999 GEGECTARCHATCTECAAATGCAAATTGAATGGCGGATGGCCGATGACCAAAATTATCGG 30 	28.47	ئے ج
2998	OCTOTETTATEATTTATATGTATATTTTTTAATTTAACAGAAAAAATTAAAAATTTAACATGAACACACGGTAGAAAATTTAATTTTTAATTTTAACATGAACACGGGTAGAAAATTTAACATGAACACACGGGTAGAAAAAAAA	27772	<u>&gt; 4</u>
29.18	9 OATAAPPPARDETETEARTATTIONETETTTIOTAGNARARAGNOSTINGETTOOT THITTETTTICLETTTICLETTTIONETETTIONETETTTION	271,	5 A
2878 2716	9 TECTAANTAAATECTGEGTTTATGGATAGTAAGAATGGCCTAGAGTGCGAGTCCT HELLIH HELLIH	2657	
2818 2656	O CANGATGAAAATCTTGTGTAAATCCTGGCATTTAAAAGTTGTAGAGATGTTTCCTC FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	275	ş <u>ş</u>
2758 2596	ONGATGCAATTCTTTGGGGGATTCGAAGCAGTTGAATGCTAGTGGTAGTTATAATAATTATAATTTTTTTT	26.47	5- <u>a</u>
2698	OCASOTECTOTETATGGCACACATTAATACTCAGCTCTTTTGTGGATATAAAATGTG 	24.75	يد ج
26 38 2476	<ul> <li>GFGGACACTGTGTACACTCGGATTGTTGTCTCACAGATGTGACTGTATAACTTTC</li> <li>GLGTGTGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT</li></ul>	2577	5- Q
2578 2416`	<ul> <li>AAAFGAATGATA DYATOLATA OCTOAAAGAAAGAAATGAGAATGAGACOTTG</li></ul>	25.13	5- A
2518 2356	9 CCAAATTEVAGCAGAAACTGACAGAAATGACTCTACTCGAACAGGAACAGGAAGAGAGAG	2455	<sub>हर्न</sub>
2458	FACOTETTGATATTGAAGATCAGAFGAAGATGGAAGTAAGTAAGTAAGTATCTCCCAGGAGAGT 	2.191	<u>چ</u> چ
2398	9. 00% de 100 de 1000 de decendado de 1000 de decende de decende de 1000 de 10	2335	<u> </u>
2338	# TEGRGAATCATTCGGGGACTTCTGGGGAAGTTCCGGGAAAATAAAT	227	≿ ہے
2278	######################################	2219	≥
2218 2056	) CACCCHACOALECTIGAGOSAAPACIATITICACCCIGAGAGICCATATAAA TITTITITITITITITITITITITITITITIT	215	्र <sub>व</sub>
1996	VICENTIAL DESCRIPTION OF A STATE OF THE PROPERTY OF THE PROPER	1.5 4.1	ي



```
(without alignments)
6107.852 Million cell updates/sec
                                                                                                                             January 18, 2004, 04:31:54; Search time 63 8013 Seconds
                                                                                                                                                                                                                                                             TEMOKOKMNUSMUTSNKEEK 874
                      Copyrith (c) 1994 - 2003 Compugen Ltd.
                                                                                     nucleic search, using trame_plus_p2n model
GenCore version 5.1.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lotal number of hits satistying chosen parameters;
                                                                                                                                                                                                                                                                                                                                                                                                                                393868 seqs, 222934149 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post processing: Minimum March U%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                         9.5
0.5
7.0
                                                                                                                                                                                                                                                          1 MDFTALCOKLKIPPHVFERA
                                                                                                                                                                                                                                                                                                                                                           Pappop 5.0 , Equpext Deloy 6.0 , Delext
                                                                                                                                                                                                                                                                                                   BLOSUM62
Xqapop 10.0 / Xqapext
                                                                                                                                                                                                                                                                                                                                                Yeapop 10.0 , Yeapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                US 09 026 459A-31
                                                                                                                                                                                                                                    Perfect score:
                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                     M protein
                                                                                                                                                                                                                                                                                                                                                                                                                                  Seatrohed:
                                                                                                                                                                                                                                                             Secquentions
```

Commuted line parameters:

Model trainer parismodel DEV-x1h

Model trainer parismodel DEV-x1h

Develor Strange St

Fred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Description	Sequence 30, Appl	Sequence 28, April	Sequence 1, Appli	Sequence 143, App
QI	US-09-469-522-30	05-09-469-522-28	4555 10 DS-09-469-5552-1	9 US 09:954-531-143
81 T	2	<u>=</u>	10	ت.
Query Match Length DB ID	74,48	4455	1555	4849
Querry Match	100.0	6, 6, 6, 6	4, 14,6,	6, 6, 6
Score	45.04	4499	44.4.3	44 14
Feesing t No.		~4	-	₹

Sequence 7, Appli		7	metice 40,	, 44	Sequence 48, April	~ `	46,	48,	77	Sequence 46, Appl	44	<	Sequence 1, Appli	7	Ψ,	Sequence 4141, Ap			404	* 46,	216, A	~	292,	1153	Sequence 185, App.	4	Sequence 51, Appl	Sequence 3, Applu	Sequence 1, Appli	Sequence 9859, Ap	Sequence 1242, Ap	Sequence 175, App.	Sequence 459, App	targarance 145, App	Sequence 40, Appl	Sequence 4, Appli	Sequence 55, Appl	4196	8044,	General 287, App	
10 US-09 860 211 7	10 US-09 469 522-50	10 05-09-469-522 (2	10 US-09-469 522-40	10 US 09:469 522 34	10 08:09 469 522:48	10 08:09:469-522 4	10 08-09-469 922 46	10 US-09 469-522-48	10 08:09:469:522:42	S	10 US 09-469-522-44	9 US-09 292 758 37	-60-80	US 10 025-676	-180 022-60-80	US 09-864-	US 09 : 864	- 196 - 60 SD	Sn	10 US 09 864-864-446	.s		09-864			9 US-09-796 692 2546		10 US U9-885-535 4		us 09 815 242		10 US-09 960-254-175	08-30 044	850 056 60 80	9 US-10:098:841:40		Ç.		10 US 09 815 #12 8043	16 08 09 962 436 287	
2662	3554	* 67 *	3461	3266	£27£	3218	3377	3 3 8 3	3347	3113	3161	3960	3747	3747	3204	411	125	304	5864	6773	3624	10096	10190	10211	10211	3.14	8443	9274	4754	2647	ا (ف ا (غ) ا (غ)	7447	3792	16300	6386	6750	6504	2988	O + O +	03/5 73/80	
49.7	49.7	0.72		24.5	93.6	93.1	8. E	92.1	١. ١٩	89.3	8 4.7	17.8	11.5	11.5	_ ໝ	5.4	æ. æ.	ۍ. <del>د</del>	3.4	3.3	÷ :	Ŧ.	~ : ~ :	3.3	*. *.	сэ 	3.2	٦.٦	3.1	3.1	o. *	9.0	0.4	e e	2.9	5.9	ۍ د	6. c	₹ 24	∞ (4	
4489	4489	4367	4 307.5	4273	∴1	4192	4156.5	4149.5	4104.5	4017	3770.5	800	516.5	516.5	366	243	ထ []	177.5	151	150	148.5	148.5	146.5	146.5		145.5	145	141.5		138.5		133	133	몵	130.5	130.5	130	129.5	6. S.C.	u	
۳.	ę	7	20	<i>&gt;</i>	C	=	검	<del>*</del>	14	15	16	17	œ +	1.5	୍ଦ	~	(1 (1	<b>5</b>	24	25	55	27	82	58	30	<del>-</del> -	32	33	34	മ സ	နှင့် ကြ	3.7	(1) (*)	5	<b>়</b>	4.1	<b>7</b>	43	77	7	

## ALIGNMENTS

```
Renedict, William F.
Zhou, Yunli
IIILE of INVENIION: MoDIFIED RETINOBLASTOMA TUMOR SUPEPESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NOWBER, USZCIJ769,522
FILING DATE: 22.Dec 1999
CLASSIFICATION: <unbenom:>
                                                                                                                                                                                                                                                                                                        ADPRESSEE: Arneld, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: 1BM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                              : Sequence 30, Application US/09469522
: Patent No. US20020151461A1
: GENEFAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                           STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                            NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                    Xu, Hong Ji
                                                                                                                                          Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                 CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                            STATE: TX
                                                                                                                  APPLICANT:
RESULT 1
US-99-469-522-30
```

```
81 LeuLysGlulleAspThrSerThrLysValAspAsnAlaMet.SerArgLeuLeuLysLys 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [44] TyrAspVall.cuPhcAlal.cuPhcScrlysl.cuGluArgThrCysCluLeuIlcTyrI.cu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         307 TATGATGTATTGTTGGACTGTTCAGCAAATTGGAAAGGAAGATGTGAAGTTATATATTTG 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 ThrGInProSerSerSerTleSorThrGluIloAsnSerAlaLeuValLeuLysValSer 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      367 APACAACCCAGCAGTTCGATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTF 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141 TrplleThrPheLeuLeuAlaLySGlyGluValLeuGlnMetGluAspAspLeuVallle 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     151 SerPheClateaMetteuCysValleuAspTyrPhellelysLeuSerProProMetLeu 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (a) Lentyethermyrtystystheralaval TehralledsrGlysenbreargtherang 200
Lenthermannand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20) ArrilystoAssArgserAlaArgileAlaLyssInLeuGtaAsnAspThrArgilelle 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             187 IICACTIIIACTGAGCIACAGAAAACATAGAAATCAGTGCCATAAATTCTTTAACTTA 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54.º CLCAAAGAACCATALAAAACAGCTGTTATACCCATTAATGCTTCACCTCGAACACCCAGG 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6) PhethribethroluleuginiysAsnileGlulleSerValHisiysPhetheAsnLeu 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21 TrpLeuThrTrpGluLysValSerSerValAspGlyValLeuGlyGlyTyrIleGlnLys 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26 459A 31 (1-874) x US-09-469-522-30 (1-3392)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches:
                                                                                                                REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                       LOCATION: 7..2628
SEQUENCE DESCRIPTION: SEQ 1D NO: 30.
                  AFPLICATION NUMBER: 09/026.459
                                                                                             REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                   LENGTH: 3392 base pairs
                                                                                                                                                          512/418-3000
                                   FILING DATE: <Unknown>
ATIORNEY/AGENT INFOPMATION+
                                                                           NAME: Hibler, David W.
                                                                                                                                                                      INFORMATION FOR SEQ 10 NO: 30: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                          SIRANDEDNESS: single
                                                                                                                                                                                                                                                        IYPE: nucleic acid
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4504.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.008
                                                                                                                                                                                                                                                                                                 OPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                     NAME/KEY. CDS
                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Host Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                    Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                               118 109 469 - 522 - 40
                                                                                                                                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCOFE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       i,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
```

```
1567 CAATCAAAGGAAAAGGAAAGAAAAATGAAGAATTGAATGTGGTTGTCGTGTAATGTT 1626
                                                                                                                                                                                                                                                                                                                                                                                                       967 GIIAGGACIGIIALGAACACTALCCAACAATTAATGALGAITITAAATICAGCAAGIGAI 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>1447 TITTATCAAAGCAGAAGGCAACTTGACAAGAGAAATGATAAAAACATTTAGAACGGTGTGTGAA 1506</u>
                                                                                                                                                                                                                                                                                                                                                                          381 GlyGlnGlyCysValGluIleGlySerGlnArdTyrIysTeuGlyValArgLe:ITyrIyr 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 LysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGluValVal 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    441 MetAlaThrTyrSerArqSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhe 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481 PhelleLysAlaGluGlyAsnLeuThrArqGluMetlleLysHisLeuGluAraCysGlu 500 [[[[[[[[]]]]]]]]]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               787 GAAAATCTTTCTAAACGATACGAAGAAATTTAICITAAAAATAAAGAICTAGAIGCAAGA 846
                                                                                                                                                                                                                                             281 LeuPhelleuAspHisAspLysThrLeuGlnThrAspSerfleAspSerPheGluThrGln. 300
                                                                                                                                                                                                                                                              201 ArgThrProArgLysSerAsnLeuAspGluGluValAshValileFroFroBisThrPro 320
                                                                                                                                                                                                                                                                                                                            361 IleLeuLysArqValLysAspileGlyTyrilePheLysGluLysPheAlaLysAalaVal 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      401 ArgValMetGluSerMetLeuLysSerGluGluGluGluArgLeuSerlleGlnAsnPheSer 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  521 CinScriysAspArgCluGlyProFhrAspHist.cuCluScrAlaCysFroLcuAsnLou 540
                                                                              667 GAÄGTICTGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAA 726
                                                                                                                                                                                                                                                                                                                                                                                                                                          341 GluProSerGluAsnLeulleSerTyrPbeAsnAsnCysThrValAsnPreLysGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      501 HisArgIleMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541 ProLeuGlnAsnAsnHisThrAlaAlaAspMet.TyrLeuSerProValArqSerProLys
                                                                                                               241 AsaPhelleProPheMetAsaSerLeuGlyLeuValThrSerAsaGlyLeuProGluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             - 12F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
...
                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                           2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                               5
                                                                              S
                                                                                                                                                                              à
                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΟŊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0.7
```

```
681 ALAPhechnihrdhayseroloubysserthrserleuserleuthetyrbysbystal 600
ELLELLEHTHELLELLEHTHELLEHTHELLEHTHELLEHTHELLEHTHELLEHTHELLE
1747 Getteetadagesaagestalgaatslagdichigeetgethiataaaaages 1806
                                                                                                                                                                                                                                                                                                            1687 AAAAAAGGTTCAACTACGCGTGTAAATTCTACTGCAAAATGCAAGAACACAAAGCTCA 1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2007 STEELER FEELE STEELE STEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2047 GITCIAGGAGACIATICAAACGIGITITIGAICAAAGAAAGAAGGAGIATGATIGITATAGIA 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22.7 TOACCOTTACOGALTCCTGGACGGAACATCTATATTTCACCTGAAGAGTGGATATAAAA 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2467 CTANGUTT IGATAT IGAAQGA LCAGATGAAGCAGATGGAAGTAAAGATCTCCCGAGGAGA 2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1927 ATGAGAGAGACATTIGGACGAATTATGATGTGTTGCATGTATGGGALATGGAAAGTG 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           701 PhetyrAsnserValPheMetGlnArqLeutysThrAsnIleLeuGlnTyrAlaSerTfir 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    821 LenArqPheAsplicGludlySerAspGluAlaAspGlySerLySHisLeuProGlyGlu 840
                                                                                                                                                                                                                                                               601 FyrArdreuAlaTyrLeuArdreuAsnThrLeuCysGluArgLeuLeuSerGluHisPro 620
                                                                                                                                                                                                                                                                                                                                                                                                                                       621 dlukadluBisilettetrpibricuPheGinHisibricuGinAsnGluryrGlukau 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661 LysAsmileAspleaLysFhetysIleIleValThrAlaTyrLysAspLeuProHisAla 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            681 ValGludhirPhel;SArqValloutHenysGluGludyrAspScrileHeVal 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           741 Sectional And Found of Foundation of Section (1988) 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               761 The Sorigh and Prombro thr Profibritys Met Thr ProArg Ser Argine LeuVal Ser 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                801 SerAspArqValLeuLysArqSerAlaGluGlySerAsnProProLysProLeuLysLys 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841 SerLysPh@GlnGlnLysLeuAlaGluMeiThrSerThrArgThrArgMetGlnLysGln 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Xu, Hong-Ji
Hu, Shi Xue
Hu, Shi Xue
Hu, Milliam F.
Zhou, Yunli
TITLE OF INVENTION: MoDIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   861 LysMetAsnAspSetMetAspihrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application 88/89469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08 09 469 522 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 =
                                                                                                                                                                                                                                                                                                                                                                                                                                            -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \stackrel{>}{\supset}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ĩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
```

```
193 AAGGAACTGTGGGGAATCTGTATGTTATTGCAGCAGT1GACCTAGA1GAGATGTCGTTC 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                253 ACTITITACTICACCIACAGAAAACATAGAAATCACTICATAAATTCTTTAACTIACTA 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               102 AspValleuPheAlaLeuPheSertysLeuGluArgThrCysCluLeuTleTyrLeuThr 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42 LysGluteuTrpCtytteCysitetheTteAtaAtaVafAspLouAspGluMet SerPho 61 HTHTHTHHHHHHHHHHHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22 LeuThrTrpGluLysValSerSerValAspGlyValLeuGlyGlyTyrIleGlnLysLys 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 AspPheThrAlaLeuCysGlnLysLeuLysIleProAspHisValArqGluArqAlaTrp 21
                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PS-09-026-459A-31 (1-874) x US-09-469-522-28 (1-3455)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative:
Mismatches:
                                       ADDRESSE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/LOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                APPLICALION NUMBER: US/09/403,52.
FILING DATE: 22-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        indels:
                                                                                                                                                                                      COMPUTER: 18M PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 7.,2691
SEQUENCE DESCRIPTION: SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 09/026,459
FILING DATE: * Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                FILING DATE: 22-Dec-1999
CLASSIFICATION: *Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                                                                                                                                                MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 3455 base pairs
                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Hibler, David W.
                                                       STREET: P.O. BOX 4433
CITY: HOUSTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
NUMBER OF SEQUENCES: 51
                   CORRESPONDENCE ADDRESS:
                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4499.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        868.66
                                                                                                                               ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAMEZARY: CDS
                                                                                                               COUNTRY: USA
                                                                                               STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90
---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

GIBPEOSE FSETSET ILESET THE GLUTE BARBER ATTERCOAT TO CATOLOGY OF THE HITTINITINITINITINITINITINITINITINITINIT	,	•			•														
GIBPLOSE SETSET LESETTHESE THE MILE AND ALCOLOGICA	‡1 32	52 2	3.1 1.2		21 32	11 32	51	31 12	10 27	~ ~	σ	- 6			~ ~	⊣ છે.	→ 10°	81 512	-
- 9-0 4	OSETSETILESETTESETTESETTESETTESETTESETTES	TEPECECTACA FALGES PELAVALICUS INMEDS INMEDS ASSESSIVATIONS PARA THE PER PER PER PER PER PER PER PER PER PE	inn dimettedeyskan daaspryrkhelienysteldschröffometheuleu 	UPFOTYELYSTHEALAVALLEPFOLLEASBGLYSBEFEAARGTHEFFOARGARG 	STEASEARGSCRALAARGHEALALGSCHILCUGTUASIASETHRAFGTLEILGGTU HELLELLITTITTITTITTITTITTITTITTITTITTITTITTIT	ÇTSTÇTSCÜ UHSCHUÇYSASH ÜLGASPĞÜ "VAÜLÇSASHVA ITÇTTPÜ ÇYSASH I IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	LI PP FOP DEMETAS IN SET LEUGLY LEUVA THE SOFAS IN STEUD FOOL HELLELLE HELLE H	.cuScrt.ysarytyrcladlattefyrt.cutysasntysaspt.cuargt.cu rtittittittittittittittittittittittittit	cdaspifisasplys thricudinith AspSer i toaspSer Phodiuthristinate in the control of the control o	AkatysSerAsnieuAspolushuvalAsnvallleproprodisthrProval 	MetAsnihrileGinGinieuMetMetileLeuAsnSeralaSorAspGin 	erfyrpheasnasncysthrvalasnprolysgluserlle 	nar avallygaapilleglygyrilaPhelysGlulysPheAlalysAlavalGly 	CiyserGinargiyriysLouCiyvalargicotyrTyrarg 	TyserGluGluArgLeaserTleGluAsnPheSertys (HTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	LeuasnaspasnilePheliisMetSerLeuteualacysalaLeuGluValValMet 	hn fyrserfargserfarserotnasmledaspserolyfhrasplaese 	1 etenasnvatteuasnteutysatarheaspihetyrtysvatttedturin eribie 1   14   11   1   1   1   1   1   1   1	
		~ ~ ~	·4 ~	√ ~	E4 200	3=5	~ ~	C4 ~	ca en	H - 4	~	$\tau - \phi$		18.2 21.1	7.5	- 라프린 - 참 - 축	2 5	~ ~	

```
2112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2233 ACTARACTINACTOR NO NATIONAL MODERNAMES CONTRACTINACTOR SERVING TO STANDARD TO STANDAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1573 GGAATGALGGAAFGGCFFFGCAIGGCICTCAGAFLCACCITIATTIGATCTTATTAAAGAA 1632
                                                                                                                                                                                                                                                                                                                                                                                                                                         2353 TEAGAAGGETTGGGAAGAGGAAGAAAALGACEGGAAGATGAAGATGAAGATGTTGGTGAGAFF 2412
502 ArgileMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGln 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                562 LysGlySerThrThrArgValAsnSerThrAlaAsnAlaGiuThrGlnAlaThrSerAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             582 PheGlnThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyr 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 702 TyrAssSerValPheMetGlnArgLeuLysThrAssIleLeuGlnTyrAlaSerThrArg 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             722 ProProThrLeuSerProlleProMisIleProArqSerProTyrLysPheProSerSer 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           762 SerGluGlyLeuProThrProThrLysMetThrProArqSerArg1leLeuValSer11e 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             822 ArgPheAspileGluGlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSer 841
                                                                                                                                                                                                                                                       522 SerLysAspArgSluGlyFroIhrAspHisLeuGluSerAlaCysProLeuAsnLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                   542 LeuGluAsaAsaHisThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              622 LeuGlaHisflelleTrpThrLeuPheGlnHisThrLeuGlnAsmGluTyrGlaLeuMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               642 ArgAspArgHisLeuAspGln1leMetMetCysSerMetTyrGly1leCysLysValLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        662 AsnileAspleaLyspheLysileIleValThrAlaTyrLysAspleaFroHisAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2053 AATATAGACCTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTICCICAIGCIGTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . ο.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                          õ
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qu ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     台
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
```

```
á
                                                                            ŝ
                                                                                                       qq
                                                                                                                                       ŝ
                                                                                                                                                                  qq
                                                                                                                                                                                                ò
                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                 G
D
                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                           ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \tilde{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
2593 AAATTECAGGAGAAATEGGAGAAATGACTTCTACTCGAAGACGAATGCAAAAGGAGAAA 2652,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22 LeufhrirpdiniysvalserservalAspdiyvalLeudlydlyryrHediniystys 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 AspPheThrAlaLeuCyschaLysLeuLysIleProAspHisValArgSluArgAlaTrp 21
                                                                                                                                                                                                                           FILLE OF INVENTION: MODIFIED RELINGBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.30
                           08 09 026 459A 31 (1-874) x 03 09 469 522-1 (1 3555)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches:
                                                                                                                                                                                                                                                                                    ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US, 09, 469, 522
FILLIN: DATE: 22 Dec 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOTKEL NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nongr hi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                          OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCALION: 7.,2790
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DAIA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IRM PC Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 41,071
                                                                                                                                                                                        Benedict, William F.
Zhou, Yundi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
FELEPHONE: 512/418 5000
TELEFAX: 512/424 2577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: JUDKNOWN.
                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                           PROTEINS
                                                                                                                     Sequence 1, Application 98/09469522
Patent No. 9820020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DENGTH: 4555 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION»
                                                                                                                                                                                                                                                                                                   HOX 4413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEC 1D NO: 1: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IYPE: nucleic acid
                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                APPLICANT: Xu, Honq Ji
Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44,818,000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 86.8766
                                                                                                                                                                                                                                                                                                                                                              77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAMEZKEY: CDS
                                                                                                                                                                                                                                                                                                                   CILY: Houston
                                                                                                                                                                                                                                                                                                      STREET: P.O.
                                                                                                                                                                                                                                                                                                                                                 COUNTRY: 11SA
                                                                                                                                                  CENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Topology:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alliquiment Scores:
                                                                                                  US 119 469 522 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US 69 469 522 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Curry Match:
                                                                                       RESULT +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
```

```
952 AATCTTTCTAAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAAGAFTA 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1312 CAGGGTTGTGTGTGAAATTGGATGACAGGGATAAAAGTTGGAGITGGCTTGTATTACCGA 1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101
                                                                                                                                                                                                   412 AAAGAAATTGATACCAGTACCAAAGTTGATAATGCTAGGCAAGAGTGTTGAAGAAGTAT 471
                                                                                                                                                                                                                                             171
                                                                                                                                                                                                                                                            122 GInProSerSerSerIleSerThrGluIleAsnSerAlaLenValLenLysValSerTrp 141
                                                                                                                                                                                                                                                                                                                                                                59]
                                                                                                                                                                                                                                                                                                                                                                                                    142 HeThrPheteuLeuAlaLysGlyGluValLeuGlnMetGluAspAspLeuVallleSer 161
                                                                                                                                                                                                                                                                                                                                                                                                                       162 PheGlnLeuMetLeuCysValLeuAspTyrPheIleLysLeuSerProProMetLeuLeu 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      182 LysGlaProTyrLysThrAlaVallleProlleAsaGlySerProArgThaProArgArg 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       212 AAAGAACCATATAAAAAGAGTGTTATAAGAGATICAAGGATICAAGAGAAGAA 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        772 GGTCAGAACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAA B41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28 J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           282 PheteralsphisAsphysThi LenginThi AspSer HeAspSer PhetiaThi GluArq (401)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    42 LysCluLeuTrpGlyIleCysIlePheileAlaAlaValAspLeuAspGluMetSerPhe 61
                                                                                                                                                        262 AsplouSerlysArglyrCluClu1] cTyrtcu1ysAshtysAsplouAspAluArqtau
                                                                          62 ThrPheThrGluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeu
                                                                                                                                                                                                                                                                                                                                             202 GlyCluAsnArgSerAlaArglicAlangsGluheuGluAsnAsplhtArglictle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222 Valleudyslys?) uffschufysAssIleAspril (VallysAss.Vull, ithelipAsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    302 ThrProArgLysSerAsnLeuAspGluGluValAsuValIleProProHisThrProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        322 ArgibryalMetAshihriledinGindenMetMetildideaAshSerAlaSerAspGin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      342 ProSerGluAsnLeulleSerTyrPheAsnAsnCysThrValAsnProLysGluSerIle
                                                                                                                                                                                                                                         102 AspValLeuPheAlaLeuPheSerLysLeuGluArqThrCysGluLeuIleTyrLeuThr
```

Lb 423 AA	762 SeroluGlyLeaProThrProThiLysMetThrProArgSerArgileLeuValSetIle 781	ŝ
13	TOTATATATATATATATATATATATATATATATATATAT	. di
11 E) E 10 1	Proceedings of the Process of the Pr	5
503	7.2. inchrothrasserProficeToHis fleb.oArgSerProfytiysPheproSerSer 741	5 8
US-09-026-45	702 TVI AsusarValPhaMaiOlaArqiauIysThrAsbileLeuGlaDyrAlaSerThrArq 721 11:111111111111111111111111111111111	Ş Ş
Host inca's Host mach: Ouery Match: DB:	682 olegluthr PhetysargValicutietyschoologhustbryraspszerictfortovalPhy 701 212 olegluth 111111111111111111111111111111111111	40 90
, , Allynment Sc. Pred. No.: Scorr: Border elmi	662 Ashileaspicolysthetysiletievatthralatyriysaspicofronisalava, 681 2152 AATATAGACTIAAATICAAAAICATORACAGATACAAASATCTGCLGAESGIGIT 2211	5 8
TYPE: DN: 7 TYPE:	647 Arthsparmfisternaspaldilemetmetoyassermettyrslyilecystysvaltys 661 i Hillittititititititititititititititititi	당 룹
NUMBER OF SOPTWARE: SEQ ID NO	622 LendluBistleiterrphrieuphedinBisthreudinAsmoiutyrGiuheumet 641 - 114	5 3
PRIOR FILE PRIOR FILE PRIOR OFF	6v2 ArdicuAldiyiLouArgi.cuAshthricuCysGluArgi.cuScr6ludishru.chu 621 11   11   11   11   11   11   11   11	5 A
FRICK APPE PRICK APPE PRICK FIL PRICK FIL	59. PhedlotherlangsEroleathysSerThrSerLeusheithefjiljsLjsUjsVulTyi 601   11111111111111111111111111111111111	5 6
CURRENT F CURRENT F CURRENT F CURRENT F	542 (yactyscribribratqvalasnscribralaasnatactuthicinalarbrscrata 58)	4o Ao
APPLICATION TITLE OF	542 teudinasnasniisthralaalaaspwettytteuserprovalargserprotystys 561 	7.2 da
RESULT 4	5.2. SerLysAspArqsludlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuPro 541 (11111111111111111111111111111111111	77. Gu
07 862 Me 1 Db 2752 Air	5-2 ArgilicMet 6) üßerlieualafirplieußeraspßerProteuPheasphouitelysofin 521 - FELLELLELLEHTELEHTELEHTELEHTELEHTELEHTEL	ਰੋ ਤੋਂ
2692	482 (telysalagluglyasnicuthrargelumetilelyshisteugluargeysgluhis 501 	\$5 \$5
2632	462 Trp11eCeuAsnValLeuAsnLeuLysAlaPheAspPheTyrLysVall1eGluSerPhe 481 	ें दे
2572	442 Alathityrscrargscrithrsordlinasni.cuaspserdlythraspicuscrithepro 461 	do.
2512	422 LoutouasnaspasnilohemismetsorLoutoualacysalalouGjuvajvalmet 441 	δο da
2452	402 ValmetGlusermetLeuLysserGluGluGludagludaerlleGlnAsnPheserLys 421 	3 £

```
4T: Weaver, See
TYPENTION. From For Identifying Anti-Cancer Therapeutic Agents Using C
TYPENTION: Gene Sets
THEFTER GRAND TRICEMENT TO SEA TO SEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     euthrirpGluLysValSerSerValAspGlyValLeuGlyGlyTyrIleGluLysLys 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4839
873
0
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          59A-31 (1-874) x US-09-954-531-143 (1-4839)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               etAsnAspSerMetAspThrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER HS/09/954, 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 2002-05-02
PLICATION NUMBER: 05/50/233,133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FELFATON NUMBER 05,66,134,539
LLING DATE: 2006-09-20
PRICATION NUMBER: 92/69/234,034
HING DATE: 2000-09-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LING DATE: 2000-09-22
PLICATION NUMBER: US/bU/234,567
LING DATE: 2000-09-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PLUCATION NUMBER 113,60,234,509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     143, Application US/09954531
. US20020165180A1
NFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2002-05-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LING DATE: 2000-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 00%
100 00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4499.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             868.66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F SEQ 1D NOS: 1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              M: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nilarity:
Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4839
```

7.5	5.2 483	Threforthrolluteuchitysasmilecturieservalhistysphopheasnieuleu Blandidithii illing in the Company of the Compan
5 A	8.2 8.4.3	Eyschutteaspihtsetihte;svalaspashalametserargleuleulystystyt 101 
5	102	ASPVALIA WIPPAJALE WPSESKILYSIANG NARGITECTYSS GLULA WILLETYLLOUTH 121   HTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
5 3 5	122	Cherroser Ser Fech Fredrither Childen in the Child of the Child Hill Hill Hill Hill Hill Hill Hill H
5 3	142	The Third contend alloyed you waltenot nime to the aspise wall be seen to a second contend to the contend of th
5 3	783	PhedloLeuMetLeucysValLeuAspTyrbhetLetSLeuserProProMetLeuLeu 181 11:11111111111111111111111111111111
5 ±	182	LyschubrolytlystbralaValthobrolleasnGlyScrProargIbrProargarg 201   HILLHILLHILLHILLHILLHILLHILLHILLHILLHIL
5 3	502	GTYGTNASBATGSGTALJAATGTTGALJYSGTNILSUGTUASBASPTYTATGTTGTTGGTU 221 FIFTITTTTTTTTTTTTTTTTTTTTTTTTTTTTGAAGAACTAGAAATGATAGAAGAATTATTGAA 962
ر م م	777	VallametyotyotyothulisettäysäätteaapotaVallysaasiValtyrehetysäsä 241 
55 25 25	242	
50 50	262	
5 3	114 4	
5 ±	40.2 1.20.4	
§ 3	122	
55 du	14.2 13.23	
63 G	36.2	
55 25	182	
85 <del>2</del>	402	402 ValMertGlüßerMettautysserGlüßlüßlührgteuserileGlüßsüPhesertys 421 

```
743 ATCAAAGGAAAAGGCAACTTGACAAGAAAAGAAATGATAAAA ATTIAGAACGATGTGAAACAT 1802
                                                                                                                                                                                                                                                                                                     2103 CGGCTAGCCIATCTCCGGCTAAAIACATTTGTGAACGCCTTCTGTGAGTACCCAGAA 2162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2283 AATATAGACCTIAAATICAAAATCATTGIAACGATACAAGGA1CTICCTCA1G3TGIT 2442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2403 TATAACTCGGGTCTTCATGCAGAGACTGAAAACAAATATTTTGCAGTATGCTTCCACGAGG 2462
                                                                                                                                                                                                                                                                                                                                                                                                                                                            109
                                                                                                                                                                      482 [LetysAlaGluGlyAsnLeuThrArgGluMetlletysHisLeuGluArqCysGluHis 50]
                                                                                                                                                                                                                                                                                                                                            542 LeuglinAsnAsnHisThrAlaAlaAspMetTyTLeuSerProValArqSerProLysLys 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       662 Asn HeAspton tysphelys Helleval (braightysysaspton from 1814) 683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProLeuArqIleProGlyGlyAsulleTyrIleSerProLeuLysSerProTyrLysIle 761
                                                        442 AlaThrTyrSerArqSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhePro 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  602 ArgleuAlaTyrLeuArgleuAsnThrLeuCysGluArgleuLeuSerGluHisFroGlu 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        622 LeuGluHisIleIleTrpThrLeuPheGluHisThrLeuGluAsnGluTyrGluLeuMet 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      702 TyrAsbSerValPheMetGlnAraLeuLysThrAsblleLeuSlnTyrAluSerThrAiu 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           762 SerGluGlyLeuProThrProThrLysMetThrProArqSerArqlleLeuValSerIle 781
                                                                                                                                                                                                                                                                                                                                                                                                  562 LysGlySerThrThrArqValAsnSerThrAlaAsnAlaGluThrGluAlathrSerAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            722 ProProThrLeuSerProlleProHislleProArgSerProTyrLysPheProSerSer 741
422 LeuteuAsnAspAsmilePheHisMetSert.com.com/csAlatronGluValValMet 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           502 ArgileMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGln
                                                                                                                                                                                                                                                                                     522 SertysAspArgGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsmLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                 PheGlnThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                742
                                                                                                                       -- q
                          qq
                                                        ŝ
                                                                                                              Ś
                                                                                                                                                                      Š
                                                                                                                                                                                              DE
                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                       \frac{\alpha}{2}
                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                  ć
                                                                                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \ddot{c}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        습
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ĉĩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
```

782 GlygluserPheGlyThrSerGlulysPheGlmlysTlcAsnGlmMetValCysAsnSer H01

ó

```
2643 GOTOMATCATTCCGGACTTCTGAGAAGTTCCAGAAAATAAATCAGATGGTATGTAACAGC 2702
                                                                                                                                                                                                                                                                                842 LysPheGlnGlnLysLeuAlaGluMeUThrSerThrArgThrArgMetGlnLysGlnLys 861
                                                                 822 ArgPheAspIleGluGlySerAspGluAlaAspGlySerLySHisLeuProGlyGluSer 841
Maneval, Daniel C.
11ILE OF INVENTION: Recombinant Adenoviral Vector and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30 URRENT APPLICATION DATA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAMÉ: Smith, Timothy S.
REGISTRATION NUMBER: 35,367
REFERENCE/INDEXE: NUMBER: 015430, occusa, odg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note- "retinoblastoma tumor suppressor"
SEGGENCE DESCRIPTION: SEQ 1D NO: 7:
                                                                                                                                                                                                                                                                                                                                                                             862 MetAsnAspSerMetAspThrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product = "PB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 08/328,673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILIN: DATE: 15-PPR-2000
APPLICATION NUMBER: US 08/142,669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 08/233,669
FILENG DATE: 26-APE-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/860,211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC Compatible OPERATING SYSTEM: PT-103/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 18-May 2001
CLASSIFICALION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IELBPHONE: (415) 576-0200
INE-RMATION FOR SEQ ID NO: 7-
SEQUENTE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gregory, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25 OCT 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 7, Application US/09860211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIKANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            139..2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DAMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STAIE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oPoloGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RY: USA
94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No. US20020137212A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME, ELY. CLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M-LECTILE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 5
```

```
1024 HTPAPACCTTTTTATGATTCTTTTGACTTGTAACALCTAATGGACTTCCAGAGGTTGAA 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      304. GATTTTACTCCATTATGTCAGAAATTAAAGATACCAGA FCATGTCAGAGAGAGAGCLLGG - 363
                                                                                                                                                                                                                                                                          122 GInProSerSerSerIleSerThrGluIleAsnSerAlaLeuValLeuLySValSerTrp 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              664 CAACCCAGCACLICCATALCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGG 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             182 LysGlaProTyrLysThrAlaVallleProIleAssGlySerProArgThrFroArgArg 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              242 PholloProPheMetAsnSorforClyLetValThrSerAssClyLetProGluValGlu 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         302 ThrProArgLysSerAsnLeuAspGluGluValAsnVallleProProHisThrProVal 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      82 LysGlufleAspThrScrThrLysValAspAsnAlaMctScrArgLcuLysLysLyr 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     544 AAAGAAATTGATACCAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTGAAGAAGTAT 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       202 GlyClnAsnArgScrAlaArgIlcAlatysClnLeuGluAsnAspThrArgIlcIlcOlu 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          904 GGTCAGAACA3SAGIGCACGGAIASCAAAACAACIAGAAAAIGAIACAAGAAIIAIIUAA 963
                                                                                                                                                                                                                                                                                                                                                                                                                   62 ThrPheThrGluLeuGlaLysAsnileGluIleSerValHisLysPhePheAsnLeuLeu 81
                                                                                                                                                                                                        2 ASPERGTARALE4.CysCludystledroAndHisValAraGluArgAlaTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        142 HembrokenenkanangsenglayallemetenmeteluAspAsplesvalileSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative:
Mismatches:
                                                                                                                                                                     US-09-026-459A-31 (1-874) x US-09-860-211-7 (1-2995)
                                                                     Matches:
                                                                                                                    indels:
                                                                                                                                          Gaps:
                                                                   4489.00
                                                                                77, 89%
99,89%
                                                                                                                    96.678
                                                                                                    Best Local Similarity:
                                                                                   Fercent Similarity:
                                  Alignment Scores:
US-09-860-211-7
                                                                                                                        Query Match:
                                                   ٠.
د
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                    š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ੋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
```

1204 1264 1324 1324 1324 1324 1444 1022 1504 422 1554 442 1654 462 1684	A NATIONAL HARMONIA DE LITTERIA DE LITTERIA DE LA CANDENIA DE LITTERIA DE LA DELITA DEL	263 4 4 1 5 1 3 8 3 6 1 4 4 4 3 7 6 5 3 7 6 8 3 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1
	4 ALGARAGGAGAAGGAAATHAAAAAAAAAAAAAAAAAAAAAAA	21 21 41 41 61 61 103
602 622 622 2164 642 662	Argueral at yt teakristeadan hittenbyschuat steakristin is sprodin 5  Cabital Hittilittiitiitiitiitiitiitiitiitiitiitii	21 163 223 183 91

```
782 Styrthiserthertyttirserti) rtysthertitystlearistiametval jakanser 801
HIIIIIIIIIIIIIIIIIIIIII
2644 GOTGAATGATGGGAATIGTGASAAGTTORAGAAATAAALGAGGGAGGGAATGAATAA 2703
2284 AATATAGACTIFAAATTCAAAATCALIGTAACAGCATAGAAGATCTICCTCALGCTGTI 2343
                                                                                  2344 CAGGAGACATTCAAACGTGTTTTGATCAAAGAAGAGGTATGATTGTATTATAGTATTC 2403
                                                                                                                                                                                                                                                                                                                                                                                                        2764 CGCTTTGATATTGAAGGATCAGATGAAGAAGAAGTAGGAAGTAACATCTCCCAGGAGAGTCC 2823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    682 GloGluThiFheLysArqValLeuileLysGluGluGyAspSerileTelleValPhe 701 HILLELHIHIHIHIHIHIHIHIHIHIHIH
                                                                                                                          702 TyrAsnSerValPheMetGlnArgLeuJysThtAsnTlcLcuSlnTyrAluScrThrArg 721
                                                                                                                                                                                                             722 ProProThrLeuSerProlleProHisTleProArgSerProTyrLysPheProSerSer 741
                                                                                                                                                                                                                                                                                                                                                                                  762 SerGludlyLeuProThtProThtLysMetThrProArqSerArqlTeLeuValSerTle 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       802 AspArqValLeuLysArqSerAluGluGlySerAsnProProLysProLeuLysLysLeu 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         822 ArgPheAspileCluGlyScrAspGluAlaAspGlySertysHisLeuPreGlyGluSer 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              842 LysPheGlnGlnLysLeuAlaGluMetThrSerThrArqThrArqMetGlnLysGlnLys 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Fatentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2884 ATGAATGATAGGATAGGATACCTCAAACAAGGAAGAAAA 2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 862 Met.AsnAspSerMetAspThrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION DATA:
FILING DATE: 22-Dec-1999
CLASSIFICATION: • Unknown •
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OPERATING SYSTEM: PC:DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Sequence 50, Application US/09469522
; Patent No. US20020151461A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: + Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-469-522-50
                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                          ò
                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
HITTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELlettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     172 GATITIACIGCATIATGICAGAAATTAAAGATACCAGATGATGTCAGAGAGAGGTTGG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82 tysthilleaspthrSerthrLysValaspasnalametSerarg.cci.cci.ystysTyr 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                172 GATGFATTGTTTGCACPCPTCGCAAATTGGAAAGGACATGAAACTFATAFATTTGACA 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  122 UlnProSerSerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrp 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (42 HelhirPhelouLeuAlalysGlyGluValLeuGlnMctGluAspAspLeuVallleSer 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     152 PheclnLeuMetLeuCysValLeuAspTyrPhelleLysLeuSerProProMetLeuLeu 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  182 IysGluProTyrLysThrAlaValIleProIleAsnGlySerProArqThrProArqArg 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             712 AAAGAACCATATAAAACAGCTGTTATACCATTAAATGGTTGACCTCGAACGA 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  772 GGICAGAACAGGGGGGGCACGGATAGCAAAACTAGAAAATGATACAAGAATTATTGAA 831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           112 NANGARATIGATACCAGTACCARAGITGAIAATGCTATGTCAAGACTGTTGAAGAAGTAT 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             42 LysslaLeaffrpGlyIleCysIlePheIleAlaAlaValAspLeuAspGluMetSerPhe 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 IhrPheThrGluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeu 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22 i.eufhrirpGiulysValSerSerValAspGiyValLeuGlyClyTyrileGlnlysLys 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 AspRheThrAlaLeuCysSlnLysLeuLyslleProAspHisValArqGluArqAlaTrp 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATEMENT STATEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38 (9 026-159A 31 (1-874) x US-09-469-522-50 (1-3554)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches:
                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SHOUBNOR DESCRIPTION: SRO ID NO: 50:
                                                                                                                                                  REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 3554 base pairs
ATTORNEY AGENT INFORMATION NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 50:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LUCALION: 7..2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4489.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     868.66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/ARY: CUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ai Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08:09 464-522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Overy Matoh:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ίŢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             =1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ें
```

```
952 AATCTTTCTAAACGATACGAAGAATTTTATCTTAAAAATAAAGATCTAGATGCAAGATTA 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1912 TTTTTGGATGATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTTGAAGACGGGGA 1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1132 AGGAÇTGTTATGAAGAGTATGGAGAATTAATGATGATTTTAAATTCAGGAAGTGATGATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1252 CTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAGCTGTGGGGA 1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1372 GRAATGGAATCCATGCTTAAATCAGAAGAACGATTATCCATTCAAAATTTTAGCAAA 1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        402 ValMet.GluSerMetLeuLysSerGluGluGluArqLeuSerIleGlnAsnPheSerLys 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              422 LeuLeuAsnAspAsnTlePheHisMetScrLeuLeuAluCysAlaLeuGluValValMet 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           462 TrpIleLeuAsnValLeuAsnLeuLysAlaPheAspPheTyrLysValIleGluSerPhe 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            522 SerLyaAspArqGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuPro 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     542 LeuGInAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArqSerProLysLys 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            562 LysGlySerThrThrArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FR2 PhodinThrSlatynFroLeitysSerThrSerLeuSerLeuFheTyrLysLysValTyr 601
                                                                                      892 TITATACTITITATGAATICITITGAACTIGIAACAICIAAIGGACITCCAGAGGITGAA 951
222 Valtemeyst, s61.4HisGlud, sAcuttaAss GluValtysAsaValtyrPbetysAsu 241
                                            832 GTTCTCTGTAAAGAAGATGAATGTAATATAGAFGAGGTGAAAAATGTTTALFTGAAAAAL 891
                                                                                                                                                                          262 AsnicuSerigrakgTyrCluClutleTyriculgsAsnigsAspleuAspAlaArgicu
                                                                                                                                                                                                                                                                   282 PhotouAspHisAspLysThrLeuGlnThrAspSerIleAspSerPheGluThrGlnArg
                                                                                                                                                                                                                                                                                                                                                                                   322 ArgührValMetAsnührileGinGinLeuMetMetileLeuAsnSerAlaSerAspGin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             352 teatysArgValLysAsplleClyTyrllePhetysClutysPheAlatysAlaValGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             482 TigiysAlaGluC'yAsh'cuThrargClaMctllchysHisLeuGluAryCysGluHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1612 AFCAAASCAGAAGGOAACTTGACAAGAGAAATGATAAAAACATTTAGAACGATGTGAACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      342 ProSerGluAsnLeuIleSerTyrPheAsnAsnCysThrValAsnProLysGluSerIle
                                                                                                                                                                                                                                                                                                                                                         302 ThrProArgigsScrAsmiceAspCluClaValAsmValTleProProHisThrProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ДD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ολ
```

```
1972 GOGTAGOCTAFICAGOGGTAAATACHTIGHTHHHHHHHHHHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     215.2 AAIATAGACCITAAAITCAAAAIGGITAACAGGATACAAGGAICTTCCICAIGCIGIT 2211
                                                                                                                                                                                                                                                                                                                                                                                                               2212 CASGAGATATPAAASGIGITIIGATCAAAGAGGGGGGTAFGATGTATITIITIITITI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2352 CCCCTACCTTGTCACCAATACCTCACATTCCTCGAAACCCTTACAAGTTTCCTAGTCA 2391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2092 AGAGACAGGATTTGGACCAAATTATGATGTGTTCCATGTATGGCATATGCAAAGTGAAG 2151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2392 OPTERAGGATION GRADGRAND FOR THE CACCONICAAGAGTOCALATAAAATE 2451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26.42 CGCTTTGATATTGAAGGATCAGATGAAGGAGTAGAAGTAAACATCTCCCAGGAGAGTCC 2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          642 ArabspArdBisLenAspAlbileMetMetCysSerMetTypClylleCysLys 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       782 G1yGluSerPhesly1hrSerG1uLySPheG1nLyS11eAsnG1nMetVa1CysAsnSer 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #22 ArqPheAspIleOlaGlySetAspGlaAlaAspGlySetLysHillHillHillHill
                                                                                                                                          622 LeusladisilelletrpthrieuPhecladisThrieuGlnAsnGlufyrGluieuMet 641
                                                                                                                                                                                                                                                                                                     662 Astalto-AspleotystholystholiteAlthrAlafythysAspleotyforlisalaVal 681
                                                                                                                                                                                                                                                                                                                                                                                       682 ChuchathathetysArqValLeutletysGluGluGlatyrAspSerileileValPhe 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       202 TyrAsoSerValFheMetGlaArqLeuLysThrAsnIleLeuGlaTyrAlaSerThrArg 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         722 ProProThrLeuserProlleProHisileProArgSerProTyrLySPheProSerSer 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     802 AspArqValLeuLysArqSerAlaGluGlySerAsnProProLysProLeuLysLeu 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  842 LysPheGlnGlnLysLeuAlaGluMetThrSerThrArgThrArqMetGlnLysGlnLys 861
                                                            602 Ardizadalatyrizadardizudsnihrizudysdinardizutzuserdinhisprodiu 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TILLE OF INVENTION; MODIFIED RETINORIASIOMA FUNDR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          862 Met AshAspSerMetAspThrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Benedict, William F.
Zhou, Youli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 32, Application 08/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No. USZGGZGISI461AL GENERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANI:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08 09 469 522 42
                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                          =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                              ŝ
                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                            Ē
                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \stackrel{\text{\tiny in}}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
```

```
125 SerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThrPhe 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              310 ACTIFICATATICIACTGAAATAAATTICTGCATTGGTGCHAAAAGHTICHLGAAHGAATHT 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                145 LeuteuAlatysGlyGluValleuGlnMetGluAspAspLeuValfleSerPheGlnLeu 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          85 ASPThrSerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspValLeu 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 45 TrpGlyllcCysllePhelleAlaAlaValAspLeuAspGluMetSerPhelhrPhelhr 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65 CluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeuLysCluIle 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-026-459A-31 (1-874) x US-09 469 522 32 (1 3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative:
Mismatches:
                                                                                                                                                                    AFPLICATION NUMBER, US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: ODKHOWH:
                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
                                                                                                 COMPUTER, IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: 7.,2559
SEQUENCE DESCRIPTION: SEG ID NO: 42:
                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026,459
                                                                                   MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                               TELEFPHONE: $12/418-3000
TELEFAX: $12/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 3323 base pairs
                                                                                                                                                                                                                                                           < Unknown>
                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                              NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 32:
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4367.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96.96
                                  COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
CITY: Houston
                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY.
                   STATE: 1X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Porcont Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>a</u>
```

184 489 204 224 524 544	569 264 284 789	304 849 324 344 959	364 1029 384 404 1130	424 424 444, 464 464 339	389 389 04 44 24
MetLeuCysVallEeuAspTyrPhetloLysLeuSerProProMetLeuLeuLysGlubro	AAAGAATHIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	HisasplysThrLeuGlnThraspSerIleAspSerPheGluThrGlnArgThrProArg [[] [] [] [] [] [] [] [] [] [] [] [] []	AshleulleSerTyrPheAshAshCysThrValAshProLysGluSerIleLeuLysArg	SerMan I savardan karanakan I masan Inda inda inda inda inda inda inda inda i	### ##################################
	21 22 24 25 24 25 25 25 25 25 25 25 25 25 25 25 25 25	285 390 305 850 425 425	445 455 1640 1840	75 05 50 10 50 50 50 50 50 50 50 50 50 50 50 50 50	
\$ \$ \$ \$ \$ \$ \$ \$	)	3 8 8 8 8	3	1 3 6 6 6 6 6 6	3 2 3 2 3 3

```
2470 CAGAAACTGGTAGAAATGATTGTAGTGGAACAGGAAAAGGGAAAAGGGGAAAAATGAAAATGAT 2529
                                                                                                                                                                                                                                                                                                                                   1930 CTTABATTCABARTCATTGTAACAGCATACAAGGATCTTCCTCATGCTGTTCAGGAGACA 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      605 TyrleuarglauasnThrleuCysGluarglauleuSerGluHisProGluLeuGluHis 624
                                                                                                                                  585 GlnLysProLoutysSorThrSorLeuSerLeuPhoTyrtystysValTyrArqLeuAla 604
                                                                                                                                                                                                                                                                                                                                                                                                    705 ValPheMetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSerThrArgFroFroThr 724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   765 LeuProIhrProIhrLysMetThrProArgSerArgIleLeuValSerIleGlyGluSer 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    825 TlodyGlySerAspGlyAlaAspGlySorLysHisLevProGlyGlySerLysPheGln 844
                                         515 AsnHisThrAlaAlaAspMctTyrLcuSerProValArgSerFrotystysStysStySer
                                                                                       565 ThribrargValAsnSerThrAlaAsnAlaGluThrClnAlaThrSerAlaPheGlnThr
                                                                                                                                                                                                   665 ToutysphetystletlevalthtatatatyrtysaspleuproHisatavalGinGluth
[]]]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               785 PheGlyrhrScrGlulysPhcGlnLysTeAsnGlnMetValCysAsnScrAspArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             845 GlnLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAshAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2530 ACCATICCATACCTICAAACAACCAAGAAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          865 SerMetAspThrSerAsnLysGluGluLys 874
                                             ò
                                                                                       ć
                                                                                                                                                                             ò
                                                                                                                                                                                                  G
                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                        £
                                                                                                                                                                                                                                                                                                                                QQ
                                                                                                                                                                                                                                                                                                                                                         \tilde{\Omega}
                                                                                                                                                                                                                                                                                                                                                                           QQ
                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                        ΩĢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                              97
                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
```

RESULT 8

```
172 CALFILACTOTALTATOTICAGAAATLAAAGATACCAGATOTICAGAGAGAGAGGCTTGG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ---GICGACCIAGAIGAGAIGICGIIC 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22 LeaThrFrpClatysValSerSerValAsp61yValLeaGly61yTyrIleGlatysLys 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         42 tyschutzatrpGlytlocystlePhetleAlaAlaValAspizeuAspGluMetSerPhe 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2. AspethorhralatouCysCinLysLouitysHeProAspHisValArgGluArgAlaTrp 21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62 Thr Phothr GlutzenGlutysAsmileGlutTeSerValHistysPhePheAsmieuLeu | 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US 09 026 459A 1 (1 874) x US 09-469 522-40 (1 3461)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches:
                                                                                                                                                                                                                                                                 ADDRESSEE: Arnold, White & Durkee SIREEL: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/LOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mdets:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-FOS/MS FOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOCATION: 7...2697
SEQUENCE DESCRIPTION: SPQ ID NO. 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DAFE: 22-Dec-1999
CLASSIFICATION: * Unknown>
                                                                                                                                  Benediet, William F.
Zhou, Yunii
                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM LYPE: Floppy disk
                       Sequence 40, Application US/09469522
                                                                                                                                                                                                      PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACIERISTICS:
LENGTH: 3461 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILLING DATE: + Unknown+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A PEORNEY ZACENT TINESPEMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ 1D NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
                                                                                                                                                                                                                                                   PORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.407,50
                                                                                       APPLICANT: Xu., Bonq Ji
                                                                                                               Hit, Shit Xite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           454.45%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96.458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95.648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   topology: linear
                                                                                                                                                                                                                         NUMBER OF SECREDINES.
                                                                                                                                                                                                                                                                                                                                                                              77210 4455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCALION: 7
                                          Farent No. US20020151461A1 OFNERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                   'IIY: Houston
                                                                                                                                                                                                                                                                                                                                                           115.8
                                                                                                                                                                                                                                                                                                                                           ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME//KEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                              TOUNTRY
                                                                                                                                                                                                                                                                                                                                        STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aliqument Secres:
0.8 0.9 469 5.22 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US U9 469 522 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              247 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     onerg Matcha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \stackrel{>}{>}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
```

```
1279 GTAATGGAATCCATGCTTAAATCAGAAGAAGATTATCCATTCAAAATTTTAGGAA 1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1339 CTTCTGAATGACAACATTTTTCATATGTCTTTATTGCGGGGCGCTTTTTGAAGG 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [219] CAGGGTTGTGTGGAAATTGGATCACAGGGATACAAA:TTGGAGTTGGTTGTATTACCGA_1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         342_ProSecCtaAsnicut leSertyrPheAsnAsnCys.hrValAsnProtyschusertLe=361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                202 / ClyclinkonkrySerAlaArd DealaLysCluber(Class) aAsnAcptErArd Decleration | 221 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    362 LeulysArqVallysAspileGlyTyrilePbelysGlalysDbeAlalysAlaValGly 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    402 ValMetGluSerMetLeuLysSerGluGluGluGluArqLeuSerlleGlnAsnPheSerLys 421
                                                                                                                                102 AspValLeuPheAlateuPheSerLysteuGluArqThr/ysGluteuTeTyrteuThr 1z1 HTHTHTHTHTHTHTHTHTH
                                                                                                                                                                                                                                                                                                                                       379 GATGTATTGTTTGCACTCTTCAGCAAATTGGAAAGGACATGTGAACTTAIATTTGACA 438
                                                                                                                                                                                                                                                                                                                                                                                                                      122 GlaProSerSerSerIleSerThrGluIleAsnSerAlaLeaValLeaLysValSerTrp 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          142 IleThrPheLeuLeuAlaLysGlyGluValLeuGlnMetGluAspAspLeuValIleSer 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 182 LysGluProTyrLysThrAlaVallleProIJeAshGlySerFroArgThrFroArgArg 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              302 ThrProArgLysSerAsnLeuAspGluGluValAsnVallleProProHisThrProVal 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      322 ArqThrValMetAsnThrIleGlnGlnCeuMetMetIleLeuAsnSerAlaSerAspGln 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        422 LeuLeuAsnAspAsnIlePhellisMetSeriædaeuAlddysAlaLeuGlaValValMet 441
                                                                               82 LysGlulleAspThrSerThrLysValAspAsuAlaMetSerArqLeuLeuLysLysTyr 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            619 AAAGAACCATATAAAACAGCTGTTATAACCCAFTAALGCTTCGACTCCGAAAACAACCAGCCA 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        739 GTTCTCTGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTCAAAAAT 798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              919 ITTTEGGATCAIGAIAAAACICIICAGACIGAIICIAIAGACAGIIIIGAAACACAGAG
259 ACTETTACTGAGCTACAGAAAAQATAGAAATCAGTGCCATAAALTCTTTAACTTACTA 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    679 GGTCAGAACAGGAGGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAA 748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            242 PhelleProPheMetAsmSerLeuGlyLeuValThrSerAsmGlyLeuFromluValGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
2
                                                                                    ŝ
                                                                                                                                                               습
                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                           Ċ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
```

```
1399 GCCACATATAGCAGAAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGCCTTTCCCA 1458
                                                                                                                                                                                                                                                                                                      1519 ATCAAAGCAGAGCAACTTGACAAGAGAAATGATAAAAGATTTAGAAGGATGTGAACAT 1578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1799 CICCAGAAIDAICACACIGGAGCAGAIAIGIACHIICIICTIGIAAGAIGICGAAAGAAA 1758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1819 ITCCAGACCCAGAAGCCATTGAAATCTACCTCTTTCACTGTTTTATAAAAAGTGTAT 1878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2299 NOCH ACCCAT LCCI GGAGGGAACAI CTATATTTCACCCTCAAGAGGTCCATATAAAATT 2358
                                                                                                                                    1459 TGGATTCTGAATGTGCCTTAAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTT 1518
                                                                                        462 TrpIleLeuAsnValLeuAsnLeuLysAlaPheAspPheTyrLysValIleGluSerPhe 481
                                                                                                                                                                                                                                                                             C.2 AralleMetGluSerLeuAlaTrpLeuSerAspSerProJeuPheAspLeuIleLysGln 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   542 LeadinAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLys 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              56.2 LysolyserThrThrArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAla 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         582 PheGluThrGlnLysProLesLygSerIhrSerLeuSerLeuPheTyrLysLysValIyr 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              622 LeugluffislleileTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMet 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (4.2 Astric Aspacingstherys Hericval ThralaTyrrysAspicarit offisAlaval 68)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          742 froLenAralleProGlyGlyAsnllcTyrIleSerProLeuLySerProTyrLysIle 761
442 AlaIhrTyrSerArqSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhePro 461
                                                                                                                                                                                     482 [[CrysAlaClaClaClyAssLeuThrArqCluMet[ICkySHisLouCluArqCysCluHis 50]
                                                                                                                                                                                                                                                                                                                                                                        522 SertysAmpArgGluGlyProThrAspHisLevGluSerAlaCysProLevAsnLeuPro 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 502 ArgleuAlaTyrleuArgleuAsnThrleuCysGluArgleuleuSerGluHisProGlu 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          682 (lns)aThrPhoLysArqValLeuIleLysSluGluGluTyrAspSerIleIleValPhe 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7:12 TyrAsuSerValPheMet@lnArgLeutysThrAsnIleLeuGlnTyrAlaSerThrArg 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        76.2 SeruluslyLeuProThrProThrLysMetThrProArqSerArqIleLeuValSerIle 781
                                                                                                                                                                                                         5
                                                                                                                                                                                                                               Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \hat{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
```

```
2479 GACCCTIGITGTTCAAAAAAAATTGCTTCAAGGAAGCCTCCTTAAACCACTGAAAAAACTA 2538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2599 AAATTTCAGCAGAAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAGCAGAAA 2558
                                                                                                                                                                                                                                                                                                                                                                                       842 TysPheCinGinlysLcuAluGiuMetThrSerThrArgThrArgMetCinhysCinhys 861
802 AspArgValieuLycArqSerAlaGluGlySerAscProProLysProLeuLysLeu 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE. Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: AFFILENTIAN NUMBER. 05/07/469.522 FILING DATE: 22-Dec-1999 CLASSIFICATION: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2659 ATGAATGGATGGATACCTCAAACAAGGAAGGAAA 2697
                                                       862 MetAsnAspSerMetAspThrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cutseffut : Tu.
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE. Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 7..2502
SPQHPNCE DESCRIPTION: SPQ ID NO: 34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 34, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 3266 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTOPNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Hibler, David W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: 34:
SEQUIENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             150.50*
100.00*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4273.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94.87%
10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: P.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Signification of the state of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Aliqnment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .. US-09-469-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
                                                                                                                                                                                           :7
```

884 CysValGlutheGlySerGlaArqTyrLysLeuGlyValArqLeuTyrTyrArqValMet 403 ` +70 AGAGTGAAGATATAGGATAGATGTFTAAAGAGAAATFTGGFAAAGCTGTGGGACAGGGF 1029 11. THE FEMALE GRAND TO THE FEMALE OF GRAND TH 140 ATTGATACCAGTACAAAGITGATAATGCTATGTCAAGACTGTTGAAGAAGTATGATGTTA 189 190 ITGITTGCACTGITCAGGAAATIGGAAAGGACATGIGAACITAIATATITGAGACAAGGC 249 124 SerSerSerTheSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThr 143 250 ACCACHTCGALATCTACLGAAATAAATTCTGCATTGGTGGTGAAAACHTCTTGGATCACA 309 144 PheLeutenAlatysGlyGluValLeuGluMetGluAspAspLeuValIleSerPheGlu 163 HITTH 84 ProTyrLysThrAlaVallleProIleAsuGlySerProArqThrFroArqArqGlyGln 203 204 AsuArqSerAlaArq11eAlaLysGluLeuGluAsuAspThrArq11e11e01uValLeu 223 490 AACAGGAGGGACGGAFAGCAAAAGAAAATAAAATAGAFACAAAATTATTGAAGTTCTC 549 224 CystyschuffischufysAsnileAspGluVallysAsnValTyrPhetysAsnPhefle 243 324 ValMet AshThrIleGlnGlnLeuMetMet IleLeuAshSerAlaSerAspGlnProSer 343 44 CluAsnieutleseriyrikeAsnAsnCysthrValAsnProtysGluSerileLeulys 363 464 ArqValLysAspiletlyTyrilePheLysGluLysPheAlaLysAlaValGlyGlnGly 383 104 TemPheAlaLeuPheSerTysLeuGluArqThrCysGluLeuTTeTyrLeuThrGInPro 123 410 TTTTTAFTAGGTAAAGGGGAAGTATACAAATGGAAGATGATCTGGTGATTTGATTTCAG 369 164 LeuMetLeuCysValleuAspTyrPhelleLysLeuSerProProMetLeuLeuLysGlu 183 244 ProPhyMetAsnSerLeuGlyfeaValThrSerAsnGlyLeaProGlaValGluAsnLeu 263 264 SertysArgTyrGluGluIleTyrLeuLysAsnLysAspLeuAspAlaArgLeuPheLeu 283 670 TCTAAACGATACGAAAAATTTATCTTAAAATAAAGATCTAGATGCAAGATTATTTG 729 284 AspetisAsptysThricuGluithrAspSerileAspSerPheGluithrGluArgithrpro 303 7.40 GATGATGATAAAACTGTTCAGACTGATTGTATAGAGAGTTTTGAAACACAGAGAACACCA 789 404 ArdlysSerAsnLeuAsp61uG1uValAsnVal11eProProHisThrProValArqThr 323 44 LentrpdtylledystlePhetleAlaAlaValAspLeuAspGluMetSerPhethrPhe 63 64 ThidluLeuGlnLysAsnileGluIleSerValHisLysPhePheAsnLeuLeuLysGlu 83 10 CIGTGGGGAATCTGTATCTTTATTGCAGTTGACCTAGATGAGATGAGTTCACTTTT 69 84 ILEASPIBLEOT That ysVolAspAsuAlaMot SetArgLeotles/ystysTyrAspVal US US 026 459A 31 (1-874) x US 09-469-522-34 (1 3266) 5 Ξ 3 5 ŝ <u>-</u>2 ŝ ŝ 4 = ŝ â = 3 â 3 5 3 Š ž 5 5 5 Š = 7 Ś 5 3  $\frac{5}{5}$ 

270 CTGAATGEGCTAAATHAAAAGCCTTGATTTTTACAAAGTGATCAAAATTTTATAAA 1429 .090 GAATGCATGCTTAAATCAGAAGAACGATTATGCALTCAAAATTTFLAGSAAATTTCFG 1149 210 TATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTGTCTTTCCCATGGATT 1269 1390 ATGGAATCCCTTGCATGCCTCTCAGATTCACCTTTATTTGATCTTAAACAATCAAAG 1449 1930 ACATICAAACGIGIIIIGALCAAAGAAGAGIGIAIGATICIATIATAGIAITCIATAA: 1985 1990 TCGGTCTICATGCAGAGAGIGAAAACAAAIA1111GCAGIATGC110CACCAGGCCCCT 2049 2110 CGGATTCCTGGAGGGAAGCATCTATATTCACCCTGAAGAGTCCAIATAAAATTTCAGAA 2169 1030 TGTGTCGAAATTGGATCACAGCGATACAAACTTGGACTTCGCTTGTATTACCGAGTAATG 1089 2050 ACCITICICACCAATACCTCACATTCCTCGAAGGGCTTAGAAGTTFGTAGTFGAGTTA Z109 444 Tyrserargerffirserginasni.cuaspsergiyilirasplenserphebiofrpiile 463 464 LeuAsnVall.euAsnI.euAsnI.euI.ysAlaPheAspPhellyrI.ysVallTedTuSerPhetTeLys 483 MetGluSerLeuAlalrpLeuSerAspSerProLeuPheAspLeu1leLystluSerLys 524 664 AspteutysPhetysIleIleValThrAldTyrLysAspteutroffisAlaValdIndia 683 724 ThrLeuSerProlleProBisIleProArqSerProTyrLysPheProSerSerProLeu 743 744 ArglieProGlyGlyAsnileTyrileSerProLeuLysSerProTyilys11eSerGlu 763 404 GluserMetLeutysSerGluGluGluArqLeuSerlleGlnAsnPheSerlysLeuLeu 423 424 AsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThr 443 SerValPheMetGlnArgLeuLysThrAsnileLeuGlnTyrAlaSerThrArgProPro 723 484 AladludiyAsnLeuThrArgdluMetileDysHisLeudluArqCysdluHisArqIle 524 AspArgGluGlyProllmAspHisLeuGluSerAladysProLeuAsmLeufreleudln 564 SerThrThrArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGln 624 HistletleTrpThrLeupheGlnHisThrLeuGlnAsncHulyrGluLeuMetArdAsp 644 ArgHisLeuAspGlnIleMetMetCysSetMetTyrGlyTLeCysLysValLysAsnILe 870 GACCITTAAATICAAAA1CA11G1AACAGGA1ATAAGGA1ATAAGGAGTAAAGGAG 544 AsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArqSerProLysLysCly q 9 á g 9 ď Q() ó 음 ć q ŝ q ें g ें ŝ ें 5 ŝ Š D ें a ŝ ੋ q ò <u>a</u>

```
2413 CAGCAGAAACTGGCAGAAATGACTTGTAGTGGAAGGGAAATGCAAAAGGAGAAAATGAAT 2469
                                                                                                                                                                                                                                                                                                                              844 GinGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGinLysGlnLysMetAsn 863
764 GlykenProThrProThrLysMetThrProArgSerArglleLeuValSerlleGlyGlu 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhou, Yunli
IITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE Patentin Peresse #1.0, Versier #1.2;
CURRENI APPLICATION DATA:
AFELLATION NUMBER, 03.09,469,500
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2479 GALAGCALGGATACCICAAACAAGGAAGAGAAA 2502
                                                                                                                                                                                                                                                                                                                                                                                                              864 AspSerMetAspThrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73,09,469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC COmpatible OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 7.,2559
SEQUENCE DESCRIPTION: SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 09,7026.459
                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Benedict, William F. Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DAIE: 22-Dec-1999 CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 38, Application 98,09469522
Patent No PSZANO9451461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MELIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 4323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  < Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INPORMATION FOR SEQ ID NO: 38:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIKANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANI: Xu, Hond-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FoPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>::</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIREET: P.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         I ELLEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME / KEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT TO
                                                                                                                                                                5
```

```
234 VallysAs.VallyrPholygAsuPactherrorbaseScricuslyresvalthr 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94 McLScrartLeuLeaLySLysTyrAspValLeaFheAlaLeuPheSerLySLeuGluArg 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 134 AlaLeuValLeuLysValSerTrpIleThrPheLeuLeuAlaLysGlyGluValLeuGln 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194 GlySerProArgThrProArgArgGlyGlnAsnArgSerAlaArgIleAlaLysGlnLeu 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            254 SerAsuGlyLeuProGluValGluAssLeuSerLysArgTyrGluGluTleTyrfeutys 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           294 IleAspSerPheGluThrGlnArgThrProArgLysSerAsnLeuAspGluGluValAsn 313
                                                                                                                                                                                                                                        217 ATGTCAAGAATGTTGAAGAAGTATGATGTATTGTTGGAGTCTTCAGGAAATTGGAAAAGG 276
                                                                                                                                                                                                                                                                                                                                                                                                                                          114 ThrCysGuncuileTyrLeaThrGlaProSerSerileSerThrGluileAsnSer 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            154 MetGluAspAspLeuVallleSerPheGlnLeuMetLeuCysValLeuAspTyrPhoIle 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         697 GEGKAKANTSITIAIIIGKAAAAHHIIAIAGUHIIAAGAAHIGTOTIGGKOTIGTAKOA 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                697 TOTAATGGACTFFCGAGAGGTTGAAAATCTTTFCTAAACGATAGGAAGAAFTTATCTTAAA 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   274 AsnLysAspLeuAspAlaArgLeuPbeLeuAspHisAspLysThrLeuGlnThrAspSer 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      757 AATAAAGATCTAGATGCAAGATTATTTTTGGATCATGATAAAACTGTTCAGACTGATTTT 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              254 ThrValAssilroLysCluScrileLeatysArgValLysAspileCiyrrileffetys (73)
                                                                                                                                                                                                                                                                                        74 ValHisLysPhePheAsnLeuLysGluIJeAspThrSerThrLysValAspAsnAla 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       54 ValAspLeuAspGluMetSerPheThrPheThrGluLeuGlnLysAsnIleGluIleSer
                                                                                                                                                                                                                                                                                                                               157 GTOCATAAATTGTTTAAGTTAGTAAAAAAATTGATAGGAGTAGGAAAGTTGATAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  314 ValileProProHisThrProValArqThrValMetAsnThrileGlnGlnLeuMetMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-026-459A-31 (1-874) x US-09-469-522-38 (1-3323)
                                                                                         Conservative:
                                                                                                          Mismatches:
                                                    Length:
Matches:
                                                                                                                           indels:
                                                                                                    100.00%
                                                                   4217.00
                                                                                           100.00%
                                                                                                                           93.638
                                                                                                          Best Local Similarity:
                                                                                         Percent Similarity:
                                  Aliqnment Scores:
US-09-469-522-38
                                                                                                                           Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           :
1⊡
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              표
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

56	٩	sc.	9	Q	· v	9	٩	و	9	۵	ء '	9	و	æ		o.	s.	
105	393	413	4.43	453 1296	473 135	143	513	5.43	553 159	573 1656	593	613	633 183	653 1896	673 1956	693 2016		73.5
THEFT HELLET HELLET FELLET HELLET HELLET HELLET HELLET HELLET HELLET HELLET HAVE AND TO THE AND THE AN	GDULYSEPE-ATALYSATAVATGLYGIRGIYCYSVATGTUTLEGTYSEFGTAATYFELYS TELETTELETETTETTETTTTTTTTTTTTTTTTTTTTT	Loostyva langlootyy tynangvalmotsi usormeticollysserstustustang 	Leuber HedinasipheserlystenleubsnaspasiflephelisMetSerlællen Hiffillittittittittittittittittittenan Hedinaspasittittittittittittittittenan erenangieren and	ALOCYSALOLOCOLOVALVALMOLATRICTYESOTACGSOFTRESOTGLIASILOUASP THEFFELLER HELLER GAGAGACTACT GAT TO TAKE TO CACATALAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGA	SerGlythrasplouSerbhetrotrpHeleuasnValleuasnLoulysalabheasp 	PhetyrtysValthechuserfhettetysAlathuGlyashleuthratgGhmettle 	LysHisterdfudrqCysGluHisArgTleMetCluSerLeuAlaTrpLeuSerAspSer +FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	ProteurbeAsplant HetyschisertysAspArqChuGlyprothrAspHisteuGlutticialititititititititititititititititititi	SetAlar'ysProLouAsoLouProLouGinAsnAsnPis BraladiaAspMetTyrLeu 111111111111111111111111111111111111	SerProValArqSerProtySLySLySGlySerThrThrarqValAsnSerThrAlaAsn +  -  -  -  -  -  -  -  -  -  -  -  -  -	A labbure of natartics and appeal of the original protocolysis of the original and the original of a decay of the original of a decay of the original origi	Ser Leuphel yr Lystys Valtyy Arghena lafyr Leuargicouso fhr Leucys Gu THEFFELLER FELLER FELLE	Argieuleuserdiullistrodiuleudiullistlettetrpthriseiphedinlisthr 	Tauchrashchutzelburgenmetargaspardhistauaspöhnlicmetmetgysser 	Mort tyrd tytte fystyskallyskant fokket ystket ystte frou ittal filler faka fokka	TyttysAsptemProBisAlaValGlaGluGluThrPhetysArgValLeufleLysGluGlu 		HekeustrayralaSerthrArgprobrothrtkatSerProfieBroHis-HebroArg ETTILLETTETTTTTTTTTTTTTTTTTTTTTTTTTTTTT
16.6	474 1057	194 1117	414	4 14	454 1297	474	454	5.14	5.34	554	574	5,94	614	6.44	654 1897	6,74	6.44 2017	7.14
ą	γ, 4	학 중	학물	् स	8 8	5 4	\$ <del>\$</del>	\$ B	75 G	\$ <u>4</u>	27 13b	는 구	23 140	독용	र्भ स	क् क्	<u>₹</u>	

```
2257 AGATCAAGAALCTTAGTATCAAFTGGTGAATCATT-GGGGAATTGTCGGGAATTGTCGGGAATTTGTGTAAAAA 2416
                                                                                                                                                                                                                                                                                                              24.37 AGTAAACATCHCCAGAGAGAGTCCAAATHTAGGAGAAACHGAGAGAGAGAGHTHTHTH
2077 AFFITGAGIAIGCTICPAPPAGGGGGTAGFIGIFACPAAIAPFIGACALIPPLAA 2136
                                                                              2137 AGCCCTTACAAGTTTCCTAGTTCACCCTTACGGATTCCTGGAGGAGAACATCTATATTTCA 2196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      794 IleAsnGlnMetValCysAsnSerAspArqValLeuLysArqSerAladludlySerAsn 814
                                                                                                                                                                                                                                                                                                                                                                      814 ProprotysProleutysLysLouArgPheAsplleCluGlySetAspGluALaAspGly 843
                                        774 ArgSerArqlleLeuValSorlleGlyGluSerPhecHyThrSerGlubysPhecHuLys 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                    834 SerLysHisLeuProGlyGluSerLysPheGlnGlnLysLeuAlaGluMetThrSerThr 854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   854 ArgThrArgMetGluLysGlnLysMetAsuAspSerMetAspThrSerAsuLysGluGlu 873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhou, Yunli
TIILE OF INVENTION: MODIFIED RETINGELASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee STREEL: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AFPLICATION NOMBER, 08/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IRM PC compatible OPERATING SYSTEM: PC DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRALION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Application US/09469522
Patent No. US20020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Hiblor, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SHO ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 51 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2557 AAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  874 Lys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-469-522-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>а</u>
                                                                                qq
                                                                                                                         OY
                                                                                                                                                           qq
                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                          ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
```

```
67 AACTTAGTAAAAGAAATTGATACAGTACCAAAGTTGATAATGCTATGTCAAGACTGTTG 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysLysTyrAspValLeuPheAlaLeuPheSerLysLeuGluArgThrCysGluLeuIle 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MethoutoutysGlubrotythysThralaVallleProlleAsnGlySerProArgThr 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            467 AIGITGOTCAAAGAACCATATAAAAACAGCTGITATACCCATTAATGGTTCACCGAACA 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      127 AAGAAGTATGATGTTTGTTTGACATTTCAGCAAATTGGAAAGGACATGTGAACTTATA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           139 ValserIrpIleThrPheLeuLeuAlaLysGlyGluValLeuGlnMetGluAspAspLeu 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                139 ValileSerPheGlnLeuMetLeuCysValLeuAspTyrPheileLysLeuSerProPro 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          48/ ATIATTGAAGTTCTCTGTAAAGAACATGTAATATATAGATGTGAGAGTGTTAT 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       239 PhelysAsiPhelleProPheMetAsiSeri.euGlyLeuValThrSerAsinGlyLeuPro 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          259 CluValGluAsnLeuSerLysArqTyrGluGluIleTyrLeuLysAsnLysAspLeuAsp 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KRP BASGITGAAAA FCITTICI AAACGATACGAAGAAATTATCTTAAAAATAAAGATCTAGAT 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27% AlaArqLeuPheLeuAspHisAspLysThrLeuGlnThrAspSerIleAspSerPheGlu 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            667 GOAAGATTATTTTGGALGALGALGALGTLGTLGAGAGTGALTGTATAGAGAGTTTTGGA 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   59 Met Ser PheThrehethrGluLeuGluLysAsnIleGluIleSerValHisLysPhephe 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         79 ASDLEULEULYSGIUIIEASPThrSerThrLysValAspAsnAlaMetSerArgLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  119 TyriouThrClnProSerSerSerIleSerThrGluIleAsnSerAlaLeuValLeuLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OF GIGATHICATHICAGHAGGAGGGGCCTGAGAHTHATAAACTCTGAGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              219 HelleGluValLeuCysLysGluHisGluCysAsnIleAspGluValLysAsnValTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           * ATGICGITCACITITACIGAGGIACAGAAAAAGAIAGAAAICAGIGICCAIAAAITCITI
                                                                                                                                                                                                                                                             3218
816
                                                                                                                                                                                                                                                                                                         Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                         12: 459A-41 (1-874) x US-09-469-522-3 (1-3218)
                                                                                                                                                                                                                                                                                         Matches:
                                                                                                                                                                                                                                                                    ength:
                                                                                                                                                                                                                                                                                                                                                        indels.
                                                                                                                                                                            Ċ
Z
                                                                                                                                                    LOCATION: 7..2454
SEQUENCE DESCRIPTION: SEQ ID
                    LENGIH: 3218 base pairs
                                            TYPE: nucleic acid
SIRANDEDNESS: single
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                           100.00%
100.00%
                                                                                                                                                                                                                                                                                       4192.00
                                                                                      ToPoloCY: linear
                                                                                                                                                                                                                                                                                                                                                        93 078
                                                                                                                                  NAME/KEY.
                                                                                                                                                                                                                                                                                                                                   Hest Local Similarity:
                                                                                                                                                                                                                                                                                                           Percent Similarity:
                                                                                                                                                                                                                                             Aliqument Scores:
                                                                                                                                                                                                US : 09 : 46 9 - 522 - 3
                                                                                                                                                                                                                                                                                                                                                     Cuery Matchi
                                                                                                                                                                                                                                                                    Fred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ä
```

```
1387 AITAAACAATCAAAGGACCGAGAAGGACCGAACTGAICACCTTGAATCTGCTTGTGCTCTT 1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1027 TATTACCGASTAATGGAATCCATGCTTAAATGAGAAGAAGGALIALCCALICAAAAL 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1327 IIGIIGAAMAIMGAAHMAINGGAAHMOOMIINGGAHGIMGAAHTCAGAHTTATHHGAHMII 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      319 ThrProValArgThrValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnSerAla 338
                                    787 ACTICAGITTAGGACTGTTATGAACACTATCCAACAATTAATGATGTTTTTAAATTCAGGA 846
                                                                                                                                                                                                                                                                                                                                                                                  419 PheSerLysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGlu 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                            439 ValValMetAlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeu 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  479 GluserPhelleLysAlaGluGlyAsnLeuThrArqGluMet11leLysHisLeuGluArg 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    619 HisProGluLeuGluHisIleIleTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyr 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              639 Gluroum-targasparghistovaspGluttometMetGysScrMetTyrStyriteCys 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  679 HisAlaValGlnGluThrPheLysArqValLeulleLysGluGluGluTyrAspSerIle 698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                339 SerAspCinProSerCluAsnLeuileSerTyrPheAsnAsnCysThrValAsnProLys
                                                                                            499 CysGluHisArglleMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  519 11etysolnSerLysAspArgOluGlyProThrAspHisteuGluSetAlaCysProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          539 AsnieuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArgSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      559 ProLystystysdlySerThrThrArqValAsnSerThrAlaAsnAlaGluThrGlnAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1567 ACCTICAGNOTIONAAANONASAAGAATIBAAATOLAGOTOLICHTOACHITTAIAAA
                                                                                                                                                    asa chasarilatantysArgValiysAspileClyTyrilePhelysCluiysPheAlatys
                                                                                                                                                                                          907 GAAAGTATAPTGAAAAAAGAGTGATATAGGATAGATGTTTTAAAGAGAAATTIGGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                579 ThrSerAlaPheGlnThrGlnLysProLeuLysSerIhrSerLeuSerLeuPheLyrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
```

```
2.447 DOAGAGICOAAAFIIIGAGGAGAAAGIGGGAGAAAIGACIIGIAGGIGGAAGAAGGAA 2406
                                                                                                                                                                                                                                                                                                                                                                                         2107 TATAAAALITCAGAAGICTGCCAACAACAAAAAATGACTCCAAGATCAAGAACITA 2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2047 O'TAGTTOAGOOTTACGGALTOCTGGAGGGAACATCTATATTTCACCCTGAAGAGTCCA 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2167 GIALCAALIGGIGAALGALIGGGGACIICIGAGAAGITGGAAAAAAAAAIGAGIGGIA 2226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2287 AAAAAACTAGGGTI LGATA LGAAGGA CAGATGAAGGAGAAGTGGAAGTAAACA I GAGAGTGGGGA 2346
                                                                                                                                                                                                                                                    //9 ProSerSerProJerArd OpenStyNJyAsuIbeTyrIbeSerProJeolly3SerFro 758
                                                                 699 [TeValPhelyrAsnSerValPheMetGlnArqLeaLysThrAsn]]eLenGlnTyrAla 718
                                                                                                                                                          719 SerThrArgProProThilbewSerProlleProHisIleProArgSerProTyrLysPhe 748
                                                                                                                                                                                                                                                                                                                                             259 1971.7811eSerGluGlytenProThrProThrIgsMetThrProArgSerArgITeLeu 778
                                                                                                                                                                                                                                                                                                                                                                                                                                       779 ValSerIlectly:31uSerPhectlyThrSerGlaLysPheGlnLysTleAsnGlnMetVal 798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          819 1781/781/781/00419/heAspileGluGlySerAspGluAlaAspGlySer1/ySHisLeuPro 838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 839 GlydluSerLysPheGludlnflysLeuAlaGluMetThrSerThrArgThrArgMetGln 858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Henedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED RETINORLASTOMA TUMOR SUPPRESSOR
                                                                                           2407 AASSASAAATGAATGGTAGGATACCTGAAACAAGGAAGAAA 2454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           859 LystluLysMetAsuAspSerMetAspThrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US,09,469,522
FILING DATE: ZZ-Doc-1969
CLASSIFICATION: • Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC COMPATIBLE OFERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: -UBKROWD - ALTORNEY, ZAČENI INPORMALION;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. BOX 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hu, Shi-Xuo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent No. US20020151451A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "ITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: 1X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 09 469 522 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 46,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FESTEL 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         =
                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>-</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
```

```
122 GinProSerSerTleSerThrGlulleAsnSerAlaLeuValleuLysValSerTrp 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             142 IleThrPheLeuLeuAlaLysGlyGluValLeuGluMetGluAspAspLouVallleSer 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182 TysCluProTyrtJsthrAlaValifeProffeAsnOlySetProArgthrFroArgArg 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GLOGOTGTTATACCCALLAALGGTTCACCTCGAATACTCAGGCGA 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              595 GOTCAGAACAGGACIGCACGCALACCAAACAACIACAAAIGALACAAAAIIATICAA 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    222 ValleaCystysGluHisClsCysAsclicAspGluVallysAsaVallyrPh.LysAan 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82 LysGluIleAspThrSerThrLysValAspAsuAlaMetSerArgLedLeuL,sL,sTyr 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          102 AspValLeuPheAlaLeuPheSerLysLeuCluAraThrCysCluLeuTleTyrLeuThr 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62 PheGinLouMetLouCysValleuAsplyrPhelletysLeuSerProProMetLouLeu 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          202 GlyglaAsnAruSerAlaArqIleAlaLysGluLenGluAsnAspthrAratlethedth 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22 LeuThrTrpGlatysValSerSerValAspGlyValLeuGlyGlyTyrlleGlatysLys 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42 LysGluf.cuTrpGlyllcCysllePhcllCAlaAlaVaiAspi.cuAspWluMetSerPhc 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62 ThrPhcThrCluicuGlnLysAsnllcGluileSerValHisLysPhcPhcAsnLeuleor 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 AspPheThrAlaLeuCysClnLysLeuLysTleProAspHisValArqClnArqAlaTrp 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-026-459A-31 (1-874) x US-09-469-522-46 (1-3377)
                                                                                                                                                                                                                                                                                                                                                          Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                            Matches:
                                                                                                                                                                                                                                                                                                                                                                                                  that is:
                                                                                                                                                                                                                                                                                                                        Leman
                                                                                                                                                                                                                           LOCATION: 7.,2613
SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                     TELEPHONE: 512/418 3000
TELEPAX: 512/474-7577
                                                                                                           LENGTH: 3477 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                   INFORMATION FOR SEQ ID NO. 46:
                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                        4156.50
                                                                                                                                                                                                                                                                                                                                                          93.13%
93.018
                                                                                                                                                                     TOPOLOGY: Linear
                                                                                                                                                                                                           NAME, KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
                                                                                                                                                                                                                                                                                                    Aliqument Scores:
                                                                                                                                                                                         FEATURE
                                                                                                                                                                                                                                                              US-09-469:522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----- 649
                                                                                                                                                                                                                                                                                                                                                                                                Duery Match:
                                                                                                                                                                                                                                                                                                                        Pred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    끞
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
:
```

261 774 281 834 301 894 321	341 1014 361 1074 381 11134 401 11194	9 4 8 2 8 8 4 O 4 H	1554 541 1614 561 1674 1734 601
	Argin:ValMetAsoThrileGinGincheuMetMetileLeu- Hillillillillillillillillillillillillill	CTANTOGNATION   CTANTOGNATIO	GGAATCATGGAATCCCTTGCATGGCTCTGAGATTCACCTTATTTGATCTTATTAAAAACA SCTTTSAAAAAAAAACAACTGCAGAATCACCTTAATTTGATCTTATTAAACACACTGAAACACACAC
4 1 2 4 7 4 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	3 4 4 4 6 F 8 7 C		1495 1555 1615 1615 1617 162 1735 1735
3 8 3 8 3 8 3 2	9 2 3 3 3 3 3 5 3 5	8 5 8 5 8 5 8 5 8 5	g

```
2395 - ATOMORIO HILLI HI
                                                                                    1795 COGCTAGCCTATCTCCCGGCTAAATACACTTTGTGAACGCCTTCTGTGTCTGAACACCAAAA 1854
                                                                                                                                                                                                                                                                               742 REGLEGARGETERFOCKSCHOOTERFILLERFILLEREUTERGAUSSERPROTYRISKEITE 761
FELLILLILLILLILLITETERFORMUNDERFOLDERFELLEREUTERFILLITETERFORMUNDE 2274
2215 COTTANGRAFFORGANGARGTATAINTENOOTIGAMENGEVATATAAAATT 2274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    842 TysPheGlnGlnLysLeuAlaGluMe*ThrSerThrArqThrArqMetGlnLysGlnLys 861
642 Argasparghistonaspointlemotmetorscormetoreolytholystysvaltys 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2515 AAATTTOAGCAGAAACTGGCAGAACAGCTOGAGAGAGAGAGAGGAAAGGGAAAAG
                                                                                                                                                                                 662 AsnileAspleatysPhetysilelleValThrAlat,rL,sAspleaProHisAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           682 GinglumhrPhcLysArgVallcullcLysGluGluGluTyrAspSerllclleValPhc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         782 GlyGluSerPheOlyThrSerCluLysPheGlnLysIleAsnGlnMe(ValCysAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      902 AspargValloutysArgSerAlaCluGlySerAsnProProLysProLoutystystem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Horodict, William F.
Zhou, Yunli
TITLE OF ENVENTION. MCDIFIED RETINOBLASTOMA TOMOR SUFFRESSOR
PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2575 ATCANTOATOCATCCATACCTCAAACAAGAGAGAAA 2613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           862 MetAsnAspScrMetAspThrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS: ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 48, Application US/09469522 Patent No. US20020151461A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shi-xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-03-469 522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
```

```
122 GlaptoSerSerSerHeSerThrGluHeAsaSerAlaLeuValLeuLysValSerTrp 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        82 1/38G1011 GASP1 ht Set 1 ht 1/38Va l AspAsnA l'aMet Set Arqueu Leuly SI/ys1 yr 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         242 TTAACH BOOAGAAAGTEEGAFCEGEGGAGGATTTEGGGAGGTTATATTCAAAGAAA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62 ThretherhrollufæuGlntysAsntleGlufleSerValHistysPhæPheAsntæufæu 81
                                                                               SOPTWARE: Patentin Release #1 0, Version #1 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US U9 U26 459A 31 (1 874) x US-09-469-522-48 (1-3383)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches:
                                                                                             CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/06/469 5/22
FILING DATE: 22 Dec-1999
CLASSIFICATION: Unknown>
                                                                                                                                                                                                                                                            REFERENCEZDOCKET NUMBER: UIXC:506
TELECHMUNICATION INFERMATION:
TELEFRAK: 512/414 3000
TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
                                                                 OPERALLING SYSTEM: PC DOS/MS-103S
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE DESCRIPTION: SKO ID NO: 48:
                                                                                                                                                              PRIOR APPLICATION NAMER: 09/026,459
ZIP: 77210-4444
COMPUTER RELAMBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: HW PC compatible
                                                                                                                                                                                                                                            REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                         LENGTH: 4484 base pairs
                                                                                                                                                                                             FILLING DATE: -Unknown. ATTORNEY ZAUFNT INFORMATION. NAME: HIbler, David W.
                                                                                                                                                                                                                                                                                                                          INPORMATION FOR SEQ ID NO: 48: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                         TYPE: mucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4149.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93.478
                                                                                                                                                                                                                                                                                                                                                                                                        PoPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME, TREY: (100)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0.9 46.9 522 48
                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
DR:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
```

```
.081 CTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAAAAJJJGGJAAAGCTGJGGGA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201 GTAATGGAATCCATGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAATTTTAGCAAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          441 ATCAAAGCAGAAAGTTGACAAGAGAAATGATAAAAGATTTAGAACGATGTGAACAT 1500
                                                                                                                                                                                                                                                                                                                                                                342 ProSerGluAsnLeulleSerTyrPheAsnAsuCysThrValAsnFroLysGluSerIle 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         382 GlnGlyCysValGluIleGlySerGlbArgTyrLysLeuGlyVulAraLeuFyrTyrArg 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 482 HetysalaGluGlyAsnLeuThrArqGluMetHetysHisLeuGluArqCysGluHis 501
                                                             182 LysCluProlyrLysThrAlaVailleProlleAsnGlySerProArgThrPreArgArg 201
                                                                                                                                                                                                      202 SlyGluAsnArqSerAlaArqIleAlaLysGluLesGlsAsnAspThrArqIlefleGlu 221
                                                                                                                                                                                                                                                                                                                                                                                                                                               841 TITITGGATCATGATAAAACICTICAGACGGATGTATAGACAGTTTTGGAACAGAAGA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901 ACACCACGAAAAAGTAACCTTGATGAAGAGTGAATGTAALLCCLCCACACACTCCAGTT 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                322 ArgThrValMetAseThrIleGlnGlnLeuMetHetHleuAsuSerAlaserAspGln 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         402 ValMetGluSerMetLenLysSerGluGluAraLouSerTleGluAshPheSerLys 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      422 LeuLouAsnAspAspliePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMet 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     442 AlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhePro 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    502 ArdileMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGln 521
                                        162 PheGInLeuMetLeuCysValLeuAspTyrPheIleLysLeuSerProProMetLeuLeu 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           282 PhoLeuAspHisAspLysThrLeuGlnThrAspSerfleAspSerPheGluThrGluArg 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               302 Thr ProArgLysSerAsnLeuAspGluGluValAsnVallIeProProHisThrProVal 421
592 ATCACATTTTTATTAGCTAAAGGGGAAGTALTACAAATGGAAGGATGTGTGGGGGATTTCA 651
                                                                                                                                                                                                                                                                                   222 ValleuCystysGluHisSluCysAshileAspSluValiyaAsaValTytiladysAsh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  712 AAAGAACCATATAAAACA---- GGGTCG-
                                                                                                                                                                                                                                            735 -----
                                        ò
                                                                              g
                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               금
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ôχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
```

```
232 ITAACTFGGGAGAAGTFFGAFCFGFGGATGGAGTFTFGGGAGGTTATATTGAAAGAAA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     42 LysGluLeuTrpGlyIleCysIlePheileAlaAlaValAspLeuAspGluMetSerPhe 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62 ThrPheThrCluLeuCInLysAsnIIcCluIIcSerValHisLysPhePheAsnI.euLeu 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 AsplicThralaLcuCysGlnLysLcuLysllCProAspHisValArgCluArgAlaTip 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22 LeuthrTrfGlaLysValSorSorValAsFGlyValLeuGlyGlyTyrIleGlaLysLys 41
                                                                                                                                                     Benedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MODIFIED PETINOBLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-026-459A-31 (1-874) x US-09-469-522-42 (1-3347)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches:
                                                                                                                                                                                                                                                                                       AGRESSIR, Arnald, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC3/69*/60/SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ndels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-LOS/MS-LOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: 7..2583
SEQUENCE DESCRIPTION: SEQ ID NO: 42:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER. 09,7026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Hibler, David W. PEGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
                                       Sequence 42, Application 05/09469522
Felent No. 0520020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                           PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGIH: 3347 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                          STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 42:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic acid
                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                    Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4103.50
                                                                                                        APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 885 L5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91.118
                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                             NUMBER OF SHOUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY. CDS
                                                                                                                                                                                                                                                                                                                               CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOPTIWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity.
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELLIAX.
                                                                                                                                                                                                                                                                                                                                                           STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Aliqnment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE
RESULT 14
US-09-469 522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-469-522-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64) arnaspanguletinaspiletinaspiletinetmothyssormethyrolytholythevilythe 63
aliterateritheritheritheritheritheritheritheratoratoratoratoratoratoraas 1980
1321 asasadasacatoraandaatatoatoratoratoratoratoratoratorasolatora 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241: 0310AALCATICOGGACTICTGAGAAGTICAGAAATAAATGAGAGGTATGTAGTAGAG 2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24.01 GACCGTG GOTTPAAAAGAGTGCTGAAGGAAGGAAGGCTGTAAAAGGAGTGAAAAAGTA 2460
                                         2101 TATAACTCGGGTCTTCAFGCAGGACTGAAAATAAATATFGGAGTAFGCAGTICCAGGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         228) TCAGAAGGICIGCCAACACCAAAAAATGACTCCAAGAICAAGAAGTTIAGIAICAAIT 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25.21 AAATTIJAGGAGAAGTGGGAGAATGACTTGTACTCGAACACGAATGCAAAAGCAGAAA 2580
                                                                                                                                                     1621 CICCAGAAIAAFCACAGIGCAGCAGAIATGTATCTTTTCTGCTGTAAGATCTCCAAAGAA 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2041 GAGGAGAFAFIGAAAGGFGFFFFGAFGAAGAAGAGGAGFATGAFFCFAFFAFFAFFC 2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7(2) SerGiuGlyteuProthrProthrLysMetThrProArgSerArg11eLeuValSer116 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             822 ArgPheAspileGluGlySerAspGluAlaAspClySerLysHisLeuProGlyGluSer 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 842 /ysPhe3lnGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLys 861
                                                                                                        542 LemilnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLys 561
                                                                                                                                                                                               962 LysolySerThrThrArdValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAla 581
                                                                                                                                                                                                                                                                                                                                                                             662 ArglenAlaTyrLenArglenAsnThrlenCysGluArgleuLeuSerGluHisProGlu 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 622 LewGluHisilelleTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMet 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ^{\circ}82 slugluThrPheLysArqValLeuIleLysGluGluGluTyrAspSerIleIleValPhe 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ?42 ProLeuArqIleProGlyGlyAsmIleTyrIleSerProLeuLysSerProTyrLysIle 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            282 (31) you tush to be and you have blanched yet to Associate Matery SAS (See 180)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       801 ApparaValLeulysArqSerAlaGluGlySerAshProFroLysProLeulysLeu 821
                  522 Sortlysaspargiliplipping hraspitstingcinsoralarysprotaganicums
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       862 MetAsnAspSerMetAspThrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . <del>. .</del> .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                            â
                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                     <u>2</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     â
```

		,	
٤		*****	
1~	¥.	. ·	
ے	142	:	
: 4	102	rrhr 1	
ش	142	£	
:-	122	1rp 1	
۵	44.3	TCG 38	
> .a	142 485	The Thirdhelm challe is soly 61 uVallend In Met Glu Aspaspleu Vali I eSer 161  A LEATH THE HILL HILL HILL HILL HILL HILL HILL HI	
	2	. t. A . 1	
:- <u>-</u> =	16.2 44.5	il.eu         CTC 5	
:	182	JArg 20	
ے	,00,	CCA 5	
م ∝د	202	(1) CHASEAR (SOFALAAR) HEALALYSCHELEGG (ASEASCFHRARG) HELLEGG [L. 22] THE HELLEGG (HELLEGG) HELLEGG (HELLEGG) HELLEGG [HELLEGG] SCHOOL ACCOUNT OF COLOR ACCORD ACCORD TAGAAA TOATACAACAATTATTATA A 524	
: :		70 000	
~ <u>.</u>	6.25	AAAT 68	
:-	747	2 = 5	
ت	SHA	GAA 7	
>~		Jieu 28	
۵	14%	ATTA 80	
⊱ .a	282	PhotomaspHisaspLysthricuGlnihraspSerilleaspSerPheGluthrGlnarg 301 THILLHIHLHIHLHIHLHIHLHIHLHIHLHIHLHIHLHIH	
. :			
54 L2	40.2 86.5	ThriftoArdLysSetAshLeuAspGTuGTuVATAshVaTTTeProProHisThrProVal 321   HTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	
*	122	ogln 3	
۵	1,74.	CAA	
5-	142	3 <u>=</u>	
۵	287	AI	
> 4	362		
. ;			
ھ ہ	: b	A14 40	
De a		1.ys 42	
ئ		AAA 1	
:	422	i.colt.coAstaAspAstritePheHisMetSerf.colf.cold.ad/ysAlaf.cold.uva1ValMet=441 	

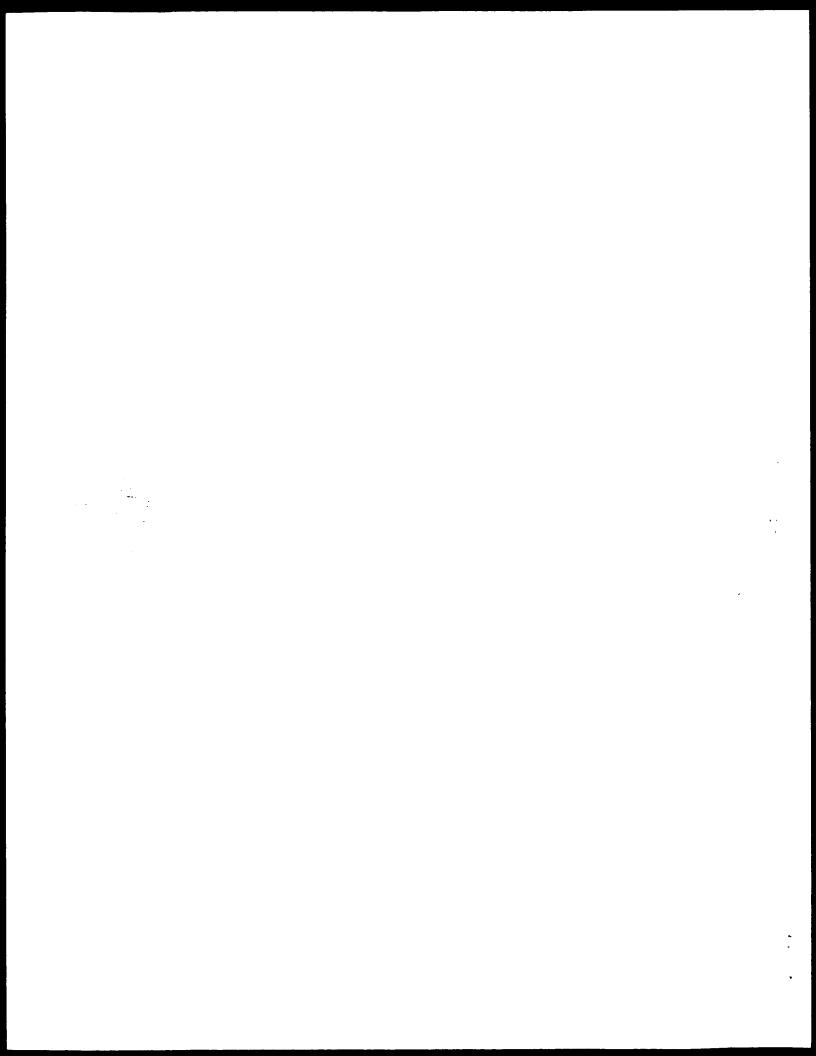
```
2185 CCCTIACGGAIICCIGGAGGAACAICIAIAIIICACCCCGAAGAGCATCCATALAAATT 2244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1585 CITCCAGAATAATCACACTGCAGCAGATATGTATCTTTCTGCTGTAAGATCTTCTAAAGAAA 1644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1885 AGAGACAGGATTTGGACCAAATTATGATGTGTGTGTATGGGATATGGCAAAGTGAAG 1944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2245 TCAGAAGGTCTGCCAACACCAACAAAATGACTCCAAGATCAAGATCTTAGTATCAATT 2404
                          1225 CTTCYCAATGACATTTTCATATGTCTTTALLGGCGTGCTCTLGAGGTTCTTAATG 1284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         602 ArgleuAlaTyrLeuArgleuAsnThrleuCysGluArgleuLeuSerGluHisProGlu 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  742 ProLeuArqlleProGlyGlyAsnIleTyrIleSerProLeuLysSelPr-TyrLysIle 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        792 TyrasoSerValPheMetClnArgLoutysThrashHeLeuGlbdyrAluSerThrarg 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         502 ArqileMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeutletysGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerlysAspArgCluGlyProThrAspHisLouGluSerAla@ysProLeuAshLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                642 ArgAspArgHistouAspCln11eMet CysSerMed 1yrGlythecystysVallys
[1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [111] [
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              682 GingluThrPheLysArqValLeuIleLysGluGluGluTyrAspSerIleIleValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2065 TATAACTCGGTCTTCATGCAGAGCTGAAAACAAATTTTGCAGTATGCTFCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProProThrLeuSerProlleProHisIleProArdSerProTyrLysPheProSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerGluClyLeuProThrProThrLysMetthrProArgSerArg11etcaValSer11e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 782 GlydluSerPhedlyThrSerGlaLySThedlnLyslleAsnoluMetValCysAsnSer
                                                                                                                                                                                                                                        462 TrplleLeuAsnValLeuAsnLeuLysAlaPheAspPhelyrLysVallLetluSerPhe
                                                                                                                                                                                                                                                                                                                                                                                          482 lletysAladluOlyAsnLeaThrArgGlaMerlletysHisLendluArgCysHluHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              542 LeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArqSerProLyshys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           562 LysClySerThrThrArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            582 PhecInThrGlnLysProLeaLysSerThrSerLeuSerLeuPhelyrLysLysTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuGluHisIleIleTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             662 AsmileAspLeatysFhebysileIleValThrAlaTyrLysAspLeaFreHisAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         722
.00
••
                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    급
```

```
2365 GAPOSTGEGETCANANGANGTGCEGANGGANGCANCCECCCTANACCAGTGANANANACTA 2424
                                                                                                       2485 AAATIICAGCAGAAACTGGGAAAAIGACTTCTACTCGAACAGGAATGCAAAGCAGAAA 2544
                                                                                  822 ArgPheAspileCluGlySerAspCluAlaAspClySerLysHisLeuProClyGluSer 841
                                                                                                                                                                       842 LysFhedlnGlnLysLeuAlaGluMetThrSerThrArqThrArqMet.GlnLysGlnLys 861
802 Aspat gVall.cul.ysArgScrA!aCluC!yScrAssProProlysProl.cul.ysl.gu. 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: MODIFIED RETINGBLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Pelease #1.0, Version #1.30
                                                                                                                                                                                                                                                                                    862 MetAsuAspSerMetAspThrSerAsnLysGluGluLys 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TURRENT APPLICATION DATA:
APPLICATION NUMBER (18/209/2469, 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-FOS/MS-FOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION: 7..2349
SEQUENCE DESCRIPTION: SEQ ID NO: 36:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 097026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41.071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hu, Shi-Xue
Benedi⊶ William P
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LASSIFICATION - PRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                           Sequence 46, Application US/09169522
Patent No. US20020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 3113 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ 1D NO: 36:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHAPACTERISTICS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.00%
100.00%
89.19%
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xu. Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4017.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POPOLOGY - Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hest Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                      US 09:469-522-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-09-459-522-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.:
                                                                                                                                                                                                                                                                                                                                                  PUSUL 1.5
                                                                                                                                                                          ŝ
```

```
967 TTATCCATTCAAAATTTTAGCAAACTICTGAATGACAACATTTTTCATATGTCTTTAITG 1026
                                                                                                                                                                                                                                                                                        154 MeiGluAspAspLeuValTlaserPheilnLeuMeiLeuCysValLeuAspTyrPheile 173
                                                                                                                                                                                                                                                                                                                                                             414 LeuSerIleGlnAsnPheSerLysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeu 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       434 AlaCysAlaLouGluValValMetAlaThrTyrSerArgSerThTSerGlnAsnLouAsp 453
                                                                                                                                                                                                               394 LeuGlyValArgLeuTyrTyrArgValMetGluSorMetLeuLysSorGluGluGluArg 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94 MetSerArgLeuLeuLysLysTyrAspValLeuPheAlaLeuPheSerLysLeuGluArg 113
                                                                                                                                            114 ThroysGluLeulleTyrLeuThrOlnProSerSerSerIleSerThrGlu11eAsuser 133
                                                                                                                                                               187 ATGGAAGATGAFCTGGTGATTTCATTTCAGTTAATGCTATGTGTCCTTGACLATTTLATL 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         214 OluAsnAspTbrArgIleIleGluValLeuCysLysGluHisGluCysAsnIleAspGlu 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 234 ValLysAsnValTyrPheLysAsnPheIleProPheMeLAsnSerLeuGlyLeuValThr 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        487 ICIAAIGGACTICAGGGGTIGAAAAICIIIGIAAAQGAIACGAAGAAAIIIAIGIIAAA 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 274 AsslysAspLeuAspAlaArsLeuPheLeuAspHisAspLysThrLeuGlnThrAspSer 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    314 VallIchroProHisThrProValArgThrValMetAsnThrIleGlnGlnLeuMetMet 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   334 HeLeuAsnSerAlaSerAspGlnProSerGluAsnLeuHeSerTyrPheAsnAsnCys 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        374 ClutysPheAlatysAlaValOtySInCtyCysValCtutleGtySerCtnArgtyrtys 393
                                                                                      667 CTAATTCCTCCACACTCCACTTAGGACTGTTALGAACACLATCCAACAACIAATGATG
¢
                              US-(04-026-454A-41 (1-874) x 08-00-469-522-36 (1-3113)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  άĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ã
                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
```

4	1027	OPTION OF THE PROPERTY OF THE	
S 2	454	SectolythrasplemberteterotrpillelemasuVallemasuLembysalabheasp 473 	
43 43	474	Phetyrtysvalttechuserphettelysalagiudiyasnikerthaargilumettie 493 	
5 3	494	Lyshis Leudinar gcyschohtsard Hemetdiuser Leuala traleuser aspser - 513 TELLELLELLELLELLELLELLELLELLELLELLELLELL	
S &	514	PropouPheAsplootheLysGluSerLysAspArgGluGlyProThrAspUlsLeuglu 533   HTTLLHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHT	
5 3	5.44	Seralad'ysprotegasofeoprofeofobasoashischrataalaaspwettyrico 553 	
97	554	Ser Provatar gsor Profystystystystystythi theracycalassisor thralaasii 573 1111   1111	
5 4	5.74	AladiuTardiaAlaThrSerAlaPhediaThrdiaDysProLeuLysSerThrSerLeu 593 111111111111111111111111111111111111	
충품	594	SectionPholythysLysVallytArgloudialythouArglouArglouArghthouCysGlu 613 	
7.5 19.0 19.0	614	ArqueulouserduntisproduulouduntisThertetrpthricuphedintisthr 633 PHELEFITTETITETITETITETITETITETITETITETITETI	
3 E	6.34	LeudinAsindluTyrdluLeuMetArgAspArqliisLeuAspGlnIleMetMetCysSer 653 1117111111111111111111111111111111111	
5 4	654 1687	Met 1910-1914 of 981 98Vall 1988 introAsptenty Sthetty Stiert coat thrata - 673 1111 1111 1111 1111 1111 1111 1111 11	
F 를	6.74	PyteysAspleoproffisAlaVa16InG101brPhetySArgValleotysG1uG1u=693   HTHTLLHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	
\$ <u>9</u>	6.9 <b>4</b> 1807	GLUTYRASESETTIETTEVALEHETYRASOSERVALPHEMETGLUAGTALEULYSTBRASN 713 TITTITTETTETTITTTTTTTTTTTTTTTTTTTTTTTT	
5 3	714	HetenchipyralaserthraeproprothiteuserProtteProfisHebroarg 733 	
45	7.14	ser Profyntyspheproser Ser Proteinarg Hebrochydlyasin Heffyr Heser - 753 EFFELLI HEFFELLI HEFFELLI HEFFELLI HEFFELLI HEFFELLI HEFFELLI As ee'e Lacaach Lee'rach Cachas Gallas Gals Gaas Gaach ee 1986	
8 4	154	254 Fr. JeoulysserProTyrLystLeserGhudlyLeuProThrProThrLysMetThrPro 773 	
5 <del>3</del> 3	774	Argserarqiselonwalserilediyölüserbediyibiserdidiyseblediniys 793 Diffilifilifilifilifilifilifili Alxicaacaatcitasialcaatbolgaatcattogggacttogggaaattoba	
6.7	7.94	HeasidinmerValCysasiiSerAspargValLeubysArqserAlaGluGlyserAsii 813 Historia Hittilli Hittilli Hittilli Hittilli Hittilli Hittilli Hittilli	

Search completed: January 19, 2003, 05:34:41 Job time: 152.801 secs



```
(Without alignments)
6107.852 Million cell updates/sec
                                                                                                                                         January 18, 2003, 04:31:54 ; Search time 63 4363 Seconds
                                                                                                                                                                                                                                                                                       TPMOKOKMNDSMDTSNKEEK 869
                   Popyright (c) 1993 - 2003 Compagen Ltd.
                                                                                            nucleic search, using trame_plus_p2n model
GenCore version 5.1.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          193868 seqs, 222944149 residues
                                                                                                                                                                                                                                                                                    1 MPPKTPRKTAATAAAAAEP
                                                                                                                                                                                                                                                                                                                                                                              Yqapop 10.0 , Yqapext
                                                                                                                                                                                                                                                                                                                                                                                                     Equpop 6.0 , Equpext Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                        Xqapop 10.0 , Xqapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Maximum DR Seq Tenath: 20000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post processing: Minimum Match 08
                                                                                                                                                                                                                                       US 09-026-459A-47
                                                                                                                                                                                                                                                                                                                                 BLUSUM6.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
                                                                                                                                                                                                                                     fithe:
Perfect score:
                                                                                                                                                                                                                                                                                                                                    Seeming table:
                                                                                            M protein
                                                                                                                                                                                                                                                                                       Section
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seat ched:
                                                                                                                                           Кип оп:
```

Post processing: Minimum Match 10%

Maximum Match 10%

Maximum Match 10%

Listing first 45 summaries

Listing first 45 summaries

Listing first 45 summaries

Model trame: parameters:

Model trame: par

Fred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Description	Sequence 46, Applisequence 1, Applisequence 143, Applisequence 7, Applisequence 7, Appli	
DATA DB ID	10	
1018	55.0	
Match Length DB ID	3.877 3555 48.19 2995	
Outerry Matich		
Scole	4454.5 4454.5 4444.5	
Ressult No.	- 4 + 4	

5.	Sequence 28, App.l	Sequence 40, Appl	Sequence 48, Appl	Seguetate 30, Appl	Sequence 42, Appl	44,	Sesperative 32, Appl	Ξ. Ψ.		×	÷	37, 1		~	-	-		Sequence 296, App	. 0	Sequence 292, App	1153,	186. A	16, 4,	3.46.	Sequence 2546, Ap	Sequence 4, Appli		Sequence 1, Appli	Sequence 145, App	Sequence 9859, Ap	Sequence 216, App.	Sequence 181, App.	Sequence 1242, Ap	or quette 1, Applit		767	Sequence 175, App.	Sequence 359, App	Sequence 40, Appl	Sequence 279, App	
118-09-4	US-09-469-522-	US-09-469 522	US-09-469 52	0.8 0.9 46.9	10 US-09-469 522 42	US-09-469	.60-SH	US-04-469 52	US-09-469-52	10 08-09 469-522-3	08-09-469	US-09-292-7	022-60-30	12 08-10 025 676 2	022 60 550	US-04 864	US-09 864	10 US-09-964-824A 296	9 08-10 071 766 51	10 US-09 864 864 292	50 80		096 6.0 80		2-60-80	US 09 885 535		10 US-09-982 091A 1	US-08-60-523	10 US-09-815-242-9859	08 - 10	9 US-09 954 531 181	60.80	U.S. C.		796-60-80	096-60-SD	S-10-04	9 US 10 098 841 40	10 02 09 801 368 279	
1554	4455	3461	3.38.4	1192	1347	4161	8353	1124	1766	4218	3113	1960	3747		1209				8493				10096	6773	324	9274	5864	4754	10300	2637	1624	5190	3555	17.71	4457	4657	7497	7792	9889	225 (	
98.7	34°	7.46	92.5	92.3	0.76	91.0	89.4	9.88	87.3	85.5	81.6	16.6	11.5	11.5	3.7	5. 4	ত: ক	4.9	£.	3.5	u`. ~	¥.	٦. در	3.4	C1 ∞	c. m	· · ·		3.1	3.1	3.1	5.9	o. €					9.5	9.3		
4444.5	4.266.5	4263	4166	4156.5	4142	4098	4024.5	1665	3940.5	3849.5	3674.5	747	516.5	516.5	343	243	න [1	177.5	161	159.5	159.5	159.5	158.5	152	145.5	145	144.5	141	140.5		139.5	132.5	131	] (-	131	131	130	130	129.5	129	
io.	0	-	œ	2	10	Ξ	다.	~	14	15	16	17	18	7.	50	2	C1 C1	23	24	25	ä	53	87	58	0 <del>.</del>	3.1	3.5	33	34	3.5	3.6	3.7	38	Ţ	4.	4	₹ 7	~ <del>\</del>	<del>- ;</del>	u: ₹	

## ALIGNMENTS

```
TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER, USZUGGA69,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Arnold, White & Durker STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSIEM: PC-LOSZMS DOS
                                                                                                                                                  Hu, Shi Xue
Benedict, William F.
Zhou, Yunli
                                              > Sequence 4b, Application 05/09469522
> Patest No. 0520620151461A1
> GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                              PROTEINS
                                                                                                                                                                                                                                                                     NUMBER OF SHOURNCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                               JORKESFONDENCE ALDRESS:
                                                                                                                      APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
Z1P: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                    CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                           STATE: TX
88501.1 1
US 09 469 522 46
```

```
67 nipatharnachappappappappappanganganaanadaagaappapagaagaagaagagagad 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    247 GITTCAICTGTGTGTGTGTTTTTTTTTTTTTTTTTTTAAAAGAAAAGGAAGTGTGTGGGGA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            [5] Hec'ysilePhelleAlaAlaValAspLeuAspGluMetSerPherhrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             807 AICHGIAICTITATIGCAGCAGTGACCTAGAIGAGAIGICGIICACTITACTGAGCIA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           141 SerThrLysValAspAsnAlaMet.SerArgLeuLeuLysLysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (5) LeartheSerlysLeaGluArgThrCysGluLeuIleTyrLeaThrGlnProSerSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerAlaArqIleAlaLysStstsustyAsnAsnAspThrArgIleIleGluValLeuCysLys 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ! MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.1. Aspt.euProt.euValArgt.euGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6) CysclnLysLenLysTleProAspHisValArgCluArgAlaTrpLeuThrTrpCluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-026 459A-47 (1-869) x US-09-469-522-46 (1-3377)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches:
                                                                                                           REFERENCE/DOCKET NUMBER: UTXC:506 [ELLEGOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
                                                                                                                                                                                                                                                                                                                     EDCATION: 7:2613
SEQUENCE DESCRIPTION: SEQ ID NO: 46:
08-09-469-522-46
                 APPLICATION NUMBER: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 41,071
                                                                                                                                                 512/418-3000
                                                                                                                                                                                                                         LENGIE: 3377 base pairs
                                       <Unknown>
                                                    ATTORNEY/AGENT INFORMATION.
                                                                      NAME: Hibler, David W.
                                                                                                                                                                TELEFAX: 512/474 7577
                                                                                                                                                                                                                                                            STRANDEDNESS: single
                                                                                                                                                                                      INFORMALLON FOR SEQ ID NO: 46:
                                                                                                                                                                                                   SEQUENCE CHAPACTFFISTICS.
                                                                                                                                                                                                                                             IYPE: nucleic acid
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                   4502.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 00%
                                                                                                                                                                                                                                                                                  TOPOLOGY: Linear
                                       FILLING DAFE:
                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hest Local Similarity:
coery Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ferrent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                 Aliqument Scores:
                                                                                                                                                                                                                                                                                                  FEATURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         É
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \bar{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>2</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40
```

```
1027 CTGATTICCTATTITAACAACTGCACAGTGAALCCAAAASAAAGTATACCAAAAAAAAAGTG 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1207 ATGCTTAAATCAGAAGAAAGAATTATCCATTCAAAATTTTAGCAAACTTCTGAALGAC 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1327 AGAAGTACATCTCAGAATCTTGATTCTGGAACNGATTGTCTTTCCCATGGATTCTGAAT 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1447 GGCAACTTGACAAGAGAAATGATAAAACATTTAGAAGGATGTGAACATCGAAATCATGGAA 1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            381 GlulleGlySerGlnArgTyrLysLeuGlyValArgLeuTyrTyrArgValMetGluSer 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 AsnilePheHisMetSerLeuLeuAlaCysAlaLeuGluValValWalAlaThrTyrSer 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  441 ArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrp11eLeuAsn 460
221 CluHisGluCysAsnlleAspCluVallysAsnValTyrPheLysAsnPhelleProPhe 240
                                                                                                                                        241 MetAsmSerLeuGlyLeuVallbrSerAsmSlyLeuProGluValGluAsmLeuSerLyo 260
                                                                                                                                                                                                                   261 ArgTyrGluGluIleTyrLeuLysAsnLysAspLeuAspAlaArgLeuPheLeuAspHis 280
                                                                                                                                                                                                                                         281 AsplysThrLeuGlaThrAspSerl1cAspScrPheGluThrGlnArgThrProArqLys 300
                                                                                                                                                                                                                                                                                                                      301 SerAsnLeuAspGluGluValAsnVallleProProHisThrProValArgThrValMet 320
                                                                                                                                                                                                                                                                                                                                                                                                     321 AsnThrileGinGlnLeuMetMetIleLeuAsnSerAlaSerAspGlnProSerGluAsn 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481 GlyAsnLeuThrArgGluMetIleLySHisLeuGluArgCysGluHisArgIleMetGlu 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          501 SerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGlnSerLysAspArg 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             561 ThrArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGln 580
                                                                                                   <u> 667. GAAPATGTAATATAGATGAGGTGAAAAATGITITATTTQAAAAATTTTGITTT 726</u>
                                                                                                                                                                             727 ATGAATTETETETEGACTTETAACATETAATGGACTTECAGAGGFTGAAAATETTETAAA 786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       341 LeulleSerTyrPheAsaAsaCysThrValAsaProLysGluSerlleLeuLysArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361 LysAspileGlyTyrilePheLysGluLysPheAlaLysAlaValGlyGlnGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  521 GluGlyProThrAspHisLouGluSerAlaCysProLeuAspLeuProLeuGlnAsmAsm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541 HisThrAlaAlaAspMetTyrLeuSerPrcValArgSerProLysLysHysHySerThr
                                                                                                                                                           ΩÇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   λo
                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                       슨
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              É
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Óχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jub
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ΩÇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                            ö
                                                                                                                                                                                                                                                                                                 ő
                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
```

```
661 tysphetystfettevalthralafyrtysaspteuproffisalavalGinGluthrPhe 680 *
                                                                                                                                                                                                                                                                                                                                                                                                                                                             HITTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1687 ACCOURTAAATIMAATGCAAATGCAGAGAGAAGCTCAGCCTCAGCCTCAGAGCCGAG 1746
                                                                                                                                                                                                                                                                  1807 (TCCGG)TAAATAJACITTGTGAAGGCCTTCTGTGTGAGGACCGAGATTAGAACATATC 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1987 AAATTCAAAAFGATFGTAACAGGATACAAGATCTTCCTCATGCTGTGAGGAGACATTC 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2247 COAACACCAACAAAATGACTCCAAGATCATCTTAGTATCAATTGGTGAATGATCATTC 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2467 GAAGGATCAGATGAGCAGATGGAAGTAAACATCTCCCAGGAGAGTCCAAATTTCAGCAG 2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2527 AAACTGGCAGAAATGACTTCTACTCGAACACGAATGCAAAAGCAGAAAAGCAGAAATGATAGC 2586
                                                                                                                               1747 AAGCCATTGAAATCTACCTCTTTCACTGTTTTATAAAAAAGTGTATGGGCTAGCCTAT 1806
                                                            741 ProdlydlyAsnIleTyrIleSerProLeuLysSerProTyrLysIleSerGluGlyLeu 760
                                                                                                                                                                                                  not tendergreadsmite tendyschudergreutenserginhisperglutengluthisite 620
                                                                                                                                                                                                                                                                                                                                 621 HetrpThrLeuPheGluffisThrLeuGlnAsnGluTyrGluLeuMetArqAspArqHis 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      681 LysArqValLeuIleLysGluGluGluTyrAspSerIleIleValPheTyrAsnSerVal 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             701 PheMetGluArglaaLysThiAsnIleLeuGlnIyrAlaSerThrArqProProThrLeu 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  761 ProThrProThrLysMetThrProArgSerArgIleLeuValSerIleGlyGluSerPhe 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          821 GludlySerAspidloAlaAspidlySerLysHisLeuProGlyGluSerLysPheGlnGln 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        801 LysArdSerAlaGluGlySerAsaProProLysProLeuLysLysLeuArgPheAspIle 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841 LystenAlaGluMetThrSerThrArqThrArqMetGlnLysGlnLysMetAsnAspSer 860
                                                                                                                                                                                                                                     TILLE OF INVENTION: MODIFIED RELINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2587 ATGGATACCTCAAACAAGAAGAGAAA 2613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                861 MetAspThrSerAsnLysGluGluLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, Hond-Ji
Hu, Shi Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US 09 469 522 1 Sequence 1, Application US/09469522 : Parent No. 082002015461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMALION:
                                                                                                                           ÷
                                                                                                                                                                                                                                                              Ē
                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               جَ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \stackrel{>}{\sim}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
```

```
101 IleCysIlePheIleAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41 AspLeuProLeuValArqLeuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 ATGCCGCCCAAAACCCCCGGAAAAAAGGCCGCGCACCGCTGCCGCTGCCGCAGAACCC 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21 ProAlaProProProProProProProGluGluAspProGluGluAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.6, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-026-459A-47 (1-864) x US-09-469-522-1 (1-3555)
                                                                                                                                                                                                                                  AFELICATION NUMBER: US, 39, 400,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
                                  ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE DESCRIPTION: SEQ ID NOT 1:
                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
                                                                                                                                                        MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFRAM: 512/418-3000
TELEFAM: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 3555 base pairs
                                                                                                                                                                                                                                                                                                                          <Unknown>
                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                    BOX 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 1;
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..2790
NUMBER OF SHOUENCES: 51
                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4454.50
93.538
93.438
                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98.948
                                                                                                                   ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: CDS
                                                              CITY: Houston
                                                    STREET: P.O.
                                                                                                    COUNTRY: USA
                                                                                                                                                                                                                                                                                                                            FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION:
                                                                                    STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Hest Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        , Oy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
```

121	GlülysasnileGlülleSerValHisLysPhePheAsnLeuLysGlülleAspIhr 1 	40
141	SerihitysvalaspasnalametSerargi.eul.eul.ysi.ystyraspvalteupheala 1 	. 09
161	Touthtesertysteudinatythteysgloteuttetyrteuthrollingtoserserser 11 	80 46
	Me!	81
20 2	ATATCTACTGAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACATTTTTATTA 6	06
6.07	GCTAAAGGGAAGTATTACAAATGGAAGATGTGGTGGTGATTFCATTFC	
181		81
299	TOTIGLOCITICACTATTTTAATTTAAACTCTCCCCATGTTGCTCAAAGAACCATATAAA 7	26
142 727	VaTaTaVaTTTeProTTeAseGTySerFroArgThrProArgArgGtySInAssArgser 	201 '. 786
202	Aldary Healatys Chreschars bapthrary Hellechual Leucys Lyschuch Hiller H	221 846
222	HISCISOFSASSIICASPOLOVALIGSASNVALTGTPHOLGSASSPREITERFORDEMECT FILLI HILLI SASAAATITTATAGOTTAGOT	241 906
242	AshSerLeuGlyLeuValThrSerAshGlyLeuProGluValGluAshLeuSerLysArg	261 966
2h2 367	Tyrclucturtetyrteulysasnlysaspleuaspalaargleuphelegasphisasp 	281 1026
282	Lys Thri.cuGlu ThraspSeri LeaspSerPheGluThrGlnargThrProargLysSer	301 1086
1087	AsniceuaspigludluValasnVallieProProHisThrProValargThrValMetasn 	321 1146
+22 1147	ThritedIngInLeuMetMetIleLeuAshSerAlaSerAspGluProSerGuAshLeu 3 	341 1206
44.2	FeSerTyrPheasnasnCysThrValasnProLysGluSerTleLeuLysArgVallys 	361 1256
46.2	AsfiledlyTyrIlePhetysdlLipSheAlaLysAlaValGlyGlyGlyGlyGlyUllillillillillillillillillillillillilli	381 1326
# # # # # # # # # # # # # # # # # # #	Hedtyskrothargfyttgskubtyvalargkufyrfyrargvalketblusermet 4   Hillitititititititititititititititititit	01 386
1.187	Lewiysserflugludludrgi.cuSerfledindsnPheSeriysi.cuLcudsnAspAsh 4. FELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTE	21 446
422	llePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThrTyrSerArg 4	41

1567 CITAATITIAAAAGCCITIGAITITIACAAAGIGAINGAAARTITITANAAAGGAGAAGGG 1626 2047 IGGAGCOTTITOCAGCACACTGGAGAATGAGTATGAACTCATGAGAGACAGGCAIIIG 2106 2227 OGESTATOGERANANANSANSANTANGAN PERTANGANTANGANTANGANTANGANATANGANTAN 2407 GGAGGAACTATATETETECACCTGAAGAGTCCATATAAAATTCAGAAGGTCGGCG 2466 2467 ACACCAACAAAAATGACTCCAAGATCAAGAATGTTAGTATCGAATTGGTGATTGGTGGGG 2526 2287 ATGCAGAGTGAAAAAGAAATAFTTTGGAGTATGCTFCCACCAGGCCCCTAGCTTGTGA 2346 462 LeuAsnLeuLysAlaFheAspFheTyrLysVallleGluSerFheileLysAlaGluGly 481 662 PheLysileileValThrAlaTyrLysAspLeuPrcHisAlaValSindluThrPheLys 681 442 SerThrSerClnAsnicuAspSerClyThrAspicuSerPheProTrpileicuAshVal 461 502 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuTleLysClnSerLysAspArqGlu 521 522 GlyProThrAspHisLeuGluSerAlaCysFroLeuAsnLeuProLeuGlnAsuAsnHis 541 542 ThralaAlaAspMetTyrLeuSerProValArgSerProLysLysLysClySerThrThr 561 582 ProLeuLysSerThrSorLeuSerLeuFheTyrLysLysValTyrArqLeuAlaTyrLeu 601 542 AspointleMetMetCysSerMetTyrSlyIleCysLysValLysAcnileAspLewLys 661 682 ArgVall.cullclysCluCluCluTyrAspScrilclleValPheTyrAsnSerValPhe 701 702 MetGlbArgLeuLysThrAsnIleLeuGlnIyrAlaSerThrArgFroFroThrLeuSer 721 722 ProfleBroHisTleProArqSerProTyrtysPhoProSerSerProLeuArq12ePro 741 712 ClyClyAsnileTyrileSerProlectysSerFreTyriysileSerCluGlyLeuPro 761 762 ThrProThrLysMetThrProArgSerArgIleLeuValSerileGlyGluSerPheGly 781 2167 TIPANATENTALAN'AN'A NASARANA MANGALENI COLCALGORI CASARANA MANATENI MANGANA MANGA 482 AsnLeuThrArgGluMetIleLysHisLeuGluArgCysGluHisArgIleMetGluSer 562 ArgValAsnScrThrAlaAsnAlaGluThrGlnAlaThrScrAlaPhcGlnThrGlnLys Ċ CP CP ò qq QQ ò ŝ ò 김 ŝ qq ò g qq ŝ 5 3 d õ ò 3 ò ô

81 ValSerSerValAsp61yValLeu61y61y1tt1le6Intystysttuteatrp6ty 100		438 APPROPRIATE TRANSPORTED AND TRANSPORTED AN		141 SetThilysValAspAsnAlaMetSetArqueuleulysLysTyrAspValleupheAla 160 	161 LeuPheSerLysLeuGluArgThrCysGluLeuIleTyrLeuThrGluProSerSerr 180 	Me!	578 ATATCTACTGAAATAAATTCTGGATTGGTGCTAAAAGTTTCTTGGATCACATTTTTATTA 2-57-181	GCTAAAVSGGGAAGTATTACAAATGGAAGATGAFCTGGFGATTTCATTTC		TGTGTGCTTGACTATTTATTAAACTGTCACCTCCCATGTTGTTGAAAGAACTATATAAA	*82 VALALAVALIZEPKOI RESIGNIYSEEPKINIIGII PENKRATGIIVALIAGANGASEE 201 	202 Albarg Lealbys Clrissuch baseas. Phrang the Hestical Systems of a 111 HTH HTH HTH HTH HTH HTH HTH HTH HTH	222 HISGUSCYSASTIEASFOLOVALLYSASHVALTYFFRACLYSASHUN ITEFLOFHAMET 241 FILLHTHILLHTHILLHTHILLHTHILLHTHILLHTHILLHTHILLHTHILLHTHILLHTH 978 CATGAAYGTAAYAGATGAGGGAAAAAGTTTATTICAAAAATTTATAAYCTTTAYG 1047	242 AsnSerLeuGlyLesValthrSerAsnSlyLeuProst.vValsturasdavas-stysArq 261 	TyrclucluleTyrlculysasnlysasplauaspalaarukutheleuasphisasp 	282 LysThrLeuglnThrAspSerTleAspSerPhedluThrdlnArgThrProArdLysSer 301 	AsnLeuAspGluGluValAsnVallleProProHisThrProValArqThrValMetAsn	AZIO AMAGATOANAMANAMANIAMANIAMIN'NY TAONAMIN'NY TAONAMIN'NY TAONAMIN'NY TAONAMANAMAN'N' 1277. S22 ThrifeCincincometMetHelaenAsnSerAlaserAspGinProSerGinAsniam 341. THILLIHITEL	ACTATICAMENTATION OF THE TOTAL CARGANICAL CANCETCAMENT OF THE TOTAL CA	34.2 HeSerfyrPhoAsbAsbCysThrValAshFroLysCluSerTleLed.gcArqValLys 461 HTTLLFFHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTH	ASPITECTYTYFITEPPELYSGULYSPERALALYSALAYAFGLYGLEGLYCYSVALGIU 	382 [1]cClySerGlnArgTyrLysLcuClyValArgLcaly1TyrArgValMetGluSerMet 401
ò à		<u>අ</u> සි	do ,	dd d	у о д	λο .	Agents Using Cand Ov		λο	<b>q</b>	do do	ंठ ते	, y du	ंड 	yo —		à t	de vo	<b>4</b> 0	40 	<u>ဂ</u> ် ရ	l
Db 2527 ACTIVITGAGAAGT FORAGAAATAAA FOAGATGGTATGTAACAGGGACGACGACGAAA 2586 OV 802 ALASARALAGT GGTAARAFORFOR FOR FORAL SELAGAGAFAAACTTEGT, 801	2587 AGAAGTOCTGAAGGAAGCAACCTCTAAACCACTGAAAAAACTACGCTTGATATTGAA	OY 822 CLYSOTASPOLUALAASPOLYSETLYSHISLOUPTOCLYCLYSPHOGLICINLYS 841  Ub 2647 GGATCAGAGAGAGAAGAAGAAGAAGAGAGAGAGAAAATTCAGAGAGAA 2706	842 (ccaAlas)uMetThrSorThrArqThrArqMetGlaLysGlaLysMetAsaAspSerMet.	TR - 2707 CLOGGROAMERACTICIACIONAMEM GOAMIGNAAAAGAAATGAATGATGGATG 2766 QY - 862 ASPTERSHIYSGLOGLILYS 869	DE 2767 GERFOLGAAGAGAAGAAA 2790 PESULI 3	US us 954 54 1 14 4 - Sequence 14 5, Application US/09954531 : Fatent No. US20020165180Al	tifying Anti-Cancer Therapeutie		CURRENT FILLING DATE: 2002-05-02 PRIOR APPLICATION NUMBER: US/60/283,189	: PRIOR FILING DATE: 2000-09-18 : PRIOR APPLICATION NUMBER US/60/234,009 : DELIA ETITAL GATE: ODDO DE DE	PROPERTY APPLICATION NUMBER: 05/60/284,034 PROPERTY APPLICATE: 2000 09/20		SOFTWARE PATENTIA VERSION 3.0 SEQ. ID NO. 143 LENGTH 4839	o Press Formas Sapieose US Of 954 541 144	Length: Matches: Conservati	Hest Local Similarity: 93.43% Mismatches: 1 Luery Mitch: 98.94% Indels: 59 DR: 9 Gaps: 1	US 09 026 4594 47 (1 869) x US 09-554-531-143 (1-4839)  O? i Med ProProLysThrProArqtysThrAlaAlaAlaAlaAlaAlaAlaAlaAlaAlaGluPro 20	Lb 138 ATCP COCCOCCOCCOCCOCCOCCCCCCCCCCCCCCCCCCC	198 COGGCOCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	Al AspteubroteuvalargiandTurbeGludiuThrCludiuProaspekeThrataicu 60     HITTITITITITITITITITITITITITITITITIT	GluLys          GAGAAA	

```
1458 ATTGGATCACAGGATAAAAAAAAAGAGATTGGCTTGTATTACGAAGTAAGGAATCCATG 1517
                                                                                         1518 CITAAATCAGAAGAAGGATTATCGATTGAAAATTTTAGGAAACTTGTGAATGACAAC
                                                                                                                                                  502 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGlnSerLysAspArgGlu 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1998 CGTGTAAATTGTACTACTACAATGCAAAGAAAAAACCCTCTAGCCTTOCAGACCAGAACCAGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2278 FECAAAA EGALTIGIFAACAGGATACAAGGATCTTTCCTCATGCTGTTTCAGGAGACATTCAAA 2357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2.58 EGIGTTTTGATCAAAGAAGAGATATGATTGTATTATAGTATTGTATAAGTGGGTGTTG 2417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2418 ATGENERAL CONTROL OF THE STATE OF THE STATE OF TAKEN AND TAKEN A 2477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          422 IloPhoHisMetSerLeuLeuAlaCysAlaLeuGluValValWetAlaThrTyrSerArg 441
                                                                                                                                                                                                                                                                               462 teuAsnteutysAlaPheAspPheTyrtysValileCluSerPheIletysAlaCluCly 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               562 ArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                722 ProlleProHisileProArdSerProTyrLysPheProSerSerProLewArd11ePro 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              442 SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrplleLeuAsnVal 461
                                                                                                                                                                                                                                                                                                                                                           482 AssieuthrArgGluMetileLysHisleuGluArgCysGluHisArgileMetGluSer 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5.22 GlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeuProLeuGinAsnAsnHis 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       942 ThriadanaspMetTyrLeuserProValArqSerProLysLysLysGlySerThrThr 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              402 ArgleuAsoThrLeuCysGluArgLeuLeuSerGluHisFroGluLeuGluHislle.621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     622 TrpThrLeaPheGlnHisThrLeaGlnAsnGluTyrGluLeaMetArgAspArgHisLea 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          **! PhelysilelleValThrAlaTyrLysAspLewProHisAlaValGlnGluThrPheLys 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   682 ArgValLeufleLysGluGluGluTyrAspSerflefleValPhcTyrAspSerValPhe 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7-2 MotolinaryLouipsThrAshlieLouClnTyrAlaSorThrArgProficTblauSor 721
á
                                                                                                                                                                2
                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                   ā
                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              충
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
```

```
2538 GGAGGGAAGATOTATATITGACCOTGAAGAGTCCATATAAAATITCAGAAGGTCTGGCA 2597
                                                          762 ThrProThrlysMotThrProArgSorArg!!o!owVa!SerTle@!yGluserPhedly 781
                                                                                                                         782 ThrScrGluLysPheGlnLysIleAsnGlnMetValCysAsnSerAspArqValLeuLys 801
                                                                                                                                                                                                                                                                                                                                                                           842 LeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsuAspSerMet 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Maneval, Daniel C. TITLE OF INVENTION. Recombinant Adenovinal Vector and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KLEENENCE/JOCKEL NUMBER, 016930 000920US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/142,669
PILING DATE: 25-OCT-1993
PPLICATION NUMBER: US 08/233,669
FILING DATE: 26-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 08/328,673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/860,211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPEKATING SYSIEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Smith, Timothy S. REGISTRATION NUMBER: 35,367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFRUNE: (415) 576-0200
TELEFAX: (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2898 GATASCTCAAACAAGGAAGAAA 2921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : Gregory, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                THIRDOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .5-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                           842 AspThrSerAsnLysGluGluLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 18-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 7, Application US/09860211 Patent No. USLU0137212AI GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY, AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ClTY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE APPRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AFPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-860-211-7
                                                                                q
                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                                           ò
```

OTHER INFORMALION: /product-"RB" /note "Letinoblasions tumor suppressor" SEQUENCE DESTRETION: SPQ ID Not 7: Conservative: Mismatches: 09 026 459A 47 (1 869) x 0S 09 860 211-7 (1-2995) Length: Matches: trdels: 1,75,7 4444,50 93.32**%** 98.72**%** 1 5.9 MOLECULE TYPE: CDNA Lex Alles N: NAMEZKIY Best Local Similarity: guery Match: Percent Similarity: Allegament Scores: FEATURE: 1S 09 860 211 7 181 Met 181 <u>-</u>  $\frac{2}{3}$ = ŝ â Ê È 5 ž <u>:</u> ŝ 5 Š 5 Ē ŝ 5  $\stackrel{>}{\supset}$ 5

182 ValAlaValileProffeAsnGlySerProArgThrProArgArgGlyGlnAsnArgSer 201 
 161
 Leuphessertysteußbranchargybrougensyteurhalteraserser 180

 11
 11

 12
 11

 13
 12

 14
 12

 15
 13

 16
 13

 17
 14

 18
 14

 19
 15

 10
 15

 10
 16

 10
 16

 11
 17

 12
 16

 13
 16

 14
 17

 15
 16

 16
 17

 17
 17

 18
 18

 19
 17

 10
 18

 10
 18

 10
 18

 10
 18

 10
 18

 16
 18

 17
 18

 18
 18

 18
 18

 18
 18

 18
 18

 18
 THE FILE FROM THE FRO ValSerSerValAspGlyValLeuGlyGlyTyrfleGlaLysLysLysGluLeuTrpGly 100 379 GTTTCATCTGTGGATGGAGTATTGGGAGGTTATATTCAAAAGAAAAAGGAACTGTGGGGGA 438 101 HedystrePhelleAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLeu 120 4.39 ATCTGTATCTTTATTGCAGCAGTTGACCTAGACATGACGTTCACTTTTACTGAGCTA 498 121 GlubysAsulleGluIleSerValHisLysPhePheAsuLeuLysGluIleAspThr 140 141 SerThillysValAspAshAlaMetSerArgLeuLeuLysLysTyrAspValLeuPheAla 160 559 AGTAPCAAAGTIGATAATGGTATGTGAAGACIGTIGAAGAAGTATGTGTTTGCA 618 679 ATATOTACHGAAATATATOTGCATTGCHGCIAAAAGTTTCTTGCAYGACATTTTTATTA 738 799 TGTGTCCTTGACTATTTATTAAAATCTCACCTCCCATGTTGCTCAAGGAACCATATAAA 858 202 AlaArq10AlaLysGluberilaAsaAspThrArq1leIleClaValLesCysLysGlu 221 I Met ProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20 21 ProAlaProProProProProPrograGluGluAspProGluGluAspSerGlyProGlu 40 41 AsptantrotanValArqtanGluPheGluGLuThrGluGLuProAspPheThrAlateu 60 61 CysGluLysLeuLysIleProAspHisValArgGluArgAlaTrpLeuThrTrpGluLys 80

 $\stackrel{\sim}{\scriptscriptstyle{5}}$ 

1099 TACGAAGAAATITATCITAAAAATAAAGATCIAGATGAAGATTAITITGGATCATGAT 1158 1279 ACTATCCAAGAATAATGATGATTTTAAATTCAGGAAGTGATCAACTTTCAGAAAATGTG 1448 1759 AACTFGACAAGAAATGATAAAACATTTAGAAGGATGTGAACATGGAATTATGAATTGC 1818 1819 CITEGAIGGCICTCAGAITCACCITIATITGAICAITATIAAACAAICAAGGACGGAA 1878 1939 ACTICCAGCAGATATICTATICTTICTICTIOAADALOTICCAAAGAAAAAAAGI LOAACTAIG 1998 1339 ATTICCIALITIAAGAAGIGCACAGIGAAICCAAAAGAAAGIAIACTGAAAAGAAGIGAAG 1398 401 101 44] Œ. 562 ArgVaTAsnSerThi AlaAsnAlaGluThiGlnAlaThrSerAlaPheGlnThiGlnLys 581 482 AsnLeuThrArgdluMetIleLysHisLeudluArgdysdluHisArglleMetGluser 501 502 LeuAlaTrpLeuSerAspSerProLeuPbcAspLeu1]etysGlnSerLysSaspArqGlu 521 919 GCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTCTGTAAAAGAA 978 522 GlyProThrAspHisLeuGluSerAlaCysProteuAsnLeuProteuGlnAsnAsnHis 362 AspiledlyTyrilePheLysGluiysPheAlaiysAlaValGlyGluSlyCysValGlu 262 TyrcludialleTyrleulysAstlysAspleuAspAlaArqleullelelaspHisAsp 282 Lys?ht.cochathrAspScrileAspCortheCtathrStaArqthatoArqtyScr 322 ThrileGinGinLeuMetMetHeLeuAsnSerAlaSerAspGinProSerGluAsnLeu 342 HeSerTyrPhoAsnAsnCysThrValAsnProLysGluSerHeLenLysArqValLys 382 ileClyserdibArg1yrLysLeuGlyValArgLeufyrTyrArgValMetGluSerMet 442 SerthrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrp1TeLeuAsnVal ପୁପ • ់ £ 9 qq 9 qq QD <u>a</u> **Q** d  $\dot{\varsigma}$ Q (1 ò 9 Š qq Š 9 ŝ 3 ò qq ć 9 ò 3 ò 5 5 ŝ ŝ Š ŝ ŝ

```
2119 CGGCTAAATACACTTTGTGAACGCCTTCTGTGTGAGCACCAGAATTAGAACATGTGTC 2178
                                                                                                                                                                                  2179 rosacectititiecaccacacecticcacaisactaiteaecteatoacacacaccatitic 2238
                                                                                                                                                                                                                                            2259 ITCAAAAFCATTGTAACAGCATACAAGGATCTTCCTCATGCTGTTCAGGAGACATTCAAA 2358
                                                                                                                                                                                                                                                                                                                                                                                                2719 AGAAGTGCTGAAGGAAGCAACCCTCCTAAACCACTGAAAAACHAGGGTTTGATATTGAA 2778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            602 ArglewAsnThriewCysGluArglewLeuSerGluHisProGluiewGluHisIletLe 621
                                                                                                                                                                                                                         (42 AsySinTleMetMetGysSerMetTyrSlyTleCysLysValLysAsaTleAsphentys 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             79. Presercialgraphedingslicasmeinmetvalegsasseraspargvalledigs 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     402 ArasorAlasi 431;SerAsBroFrsiySProLouiysiysLeuAraPheAspileGiu 821
                                                                                                                                                     522 TrpThLLeuPheGluHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArgHisLeu 641
                                                                                                                                                                                                                                                                                                   662 PhetystlefleValThrAlaTyrtysAspLeaProHisAlaValGlnGluThrPhetys 681
                                                                                                                                                                                                                                                                                                                                                                          682 ArqValLeuIleLysGluGluGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        722 ProlleProHislleProArgSerProTyrLysPheProSerSerProLeuArgllePro 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  742 GlyGlyAsmIloTyrIloSorProLeuLysSorProTyrLysIloSorGluGlyLouPro 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         762 fhrProfhtLysMetThrProArgScrArgIleLouValScrIleClyCluScrPheGly 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       842 heualadluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IIILE OF INVENTION: MODIFIED RETINOFIASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2899 GAIACHCAAACAAGGAACAGAA 2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                862 AspThrSerAsnLysGluGluLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 50, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT, Xu. Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-469-522 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULL 5
                                    G.
                                                                                                                                                     ŝ
                                                                                                                                                                                      <u>ء</u>
                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>ئ</u>
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
```

PROTEINS

NUMBER OF SPONFNCES. 51

```
81 ValSerSerValAsp61;ValLeuGl;GlyTyrIleGlnLysLysLysGluLeuTrp61y 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101 IleCysIlePheIleAlaAlaValAspLeuAspGluMet.SerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 GlnLysAsn: PcGlulleSerValHisLysPhePheAsn.cuLeu..ysGlulleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIs Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3554
865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JS-09-026-459A-47 (1-869) x US-09-469-522-50 (1-3554)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative.
Mismatches:
                 White & Durkee
                                                                                                                                                                                                               APPLICATION NUMBER, US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: Unknown.
                                                                                                                                                                                                                                                                                                                                                                   117.XC - 50.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ ID NO: 50:
                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                  · Unknown.
                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION : NFORMATION.
TELEPHONE: 512/418-3000
                                                                                                                                MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 3554 base pairs
                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
               ADDRESSEE, Arnold, Whi
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: 512/418-300
TELEPAX: 512/474-7577
                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: 50: SEQUENCE CHAPACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: single
                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
CORRESPONDENCE ADDRESS:
                                                                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                93.438
93.218
98.728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4444.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear
                                                                                                ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: CDS
                                              CITY: Houston
                                                                                 COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION.
                                                                 STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JS-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ċ
```

.5.	46.7	CRIMANANIA MARAMANIA MATANIA MANANIA MANANIA MANANANANIA MANANANIA MANANANIA MANANIA M	126
	141	Set thr tysva laspasnalamet set at queul cultystystytaspva licuithella at left fill fill fill fill fill fill fill fi	091
	16.1	161 JauphesertystaudinkryThrCysdiuLeuTheThrchufhrGlüproserserser 180 17 FEBRUAR HALLITTELLITTELLITTELLEUTHETHETHETHETHETHETHETHETHETHETHETHETHET	180 546
`	181	Mod	
.5.	1,47	ATALSTASTGAAATAAATTSTGGAATTSGTGSTAAAAGTTTGTTGGAATGACATTTTTATTA 6	900
	_ 		<u>=</u>
.5.	6.017	GCTAAAGGGGAAAGTATTACAAATGGAAGATGATGTGTGGTGATTTGATTTGAGTTAATGCTA 6	999
	181		181
.5	6.6.7	TGTGTCTTGACTATTTTATTAAACTCTCACGTCCCATGTTGCTCAAAGAACCATATAAA 7	126
	182	ValAlaVallieProlleAsnGlySerProArgThrProArgArgGlyGlnAsnArgSer 2	103
3 5	77	AN ANCHOLIATAN CLATIAA INGOLITICA CHEGA ACADEM CENGA GOLGA GOLGA GA ANCHOLIA INGOLIA ANCHOLIA INGOLICA GA ANCHOLIA INGOLIA ANCHOLIA ANCHOL	98 5
	787	GCACGGATAGCAAAACAACTAGAAATGATACAAGAATTATTGAAGTTCTCTGTAAAGAA 8	346
	77.7		:41
_	н47	CALGAALGLAATALAGALGAGGGAAAAALGLELALTTICAAAAATTTTATAGCTTTTATG 9	906
	242	AsitSerte with the UValthriser Asits by Ley Proflay Valid to USer Lys Arg 2	261 366
٠.,	747	TyttingfulletyttentyskanlyskapteukspalaargientheleutspHisksp 2	281
a	1963	TANGARATTTATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTGGATCATGAT 1	1026
× 5	7201	LysThrLevelnThrAspSerIleAspSerPheGluThrGlnArgThrProArgLysSer 3 111 1111111111111111111111111111111	301 1086
	701	Asula-wAspelueluValAsuValIteProProProHisThrProValArqThrValMetAsn 3	
a.	1087	AACCTEGAGAAGAGGGAAGGTAATTCCTCCACACTCCAGTTAGGACTGTATGAAC 1	1146
S 0	1147	The Heeling Intermet Met HelenaanSer AlaSer AspCinProSerCluAsnicu 3 HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	34.1
٠,	14.2	HeserTyrtheAsaAsaCysThrValAsaProLysGluSerHeLeuLysArqValLys 3	361
_	1207	ATTICLIALLI FACARCHOPACHO CARARGARACHATACHO ATTICLIALLI FARARGARACHATACHO ATTICLIALLI FARARGARACHO ATTICLIALLI FARARCHO ATTICLIALLI FARARCHO	1266
	14,2	Aspiledlytyr HefteryschulyschealalysalabalgiyghidlycysValglu 3 	381 1326
`-	187	HeelySerGlaArdlyrLysLeaGlyValArgleHTyrTyrArgValMetGluSerMet 4	101
à	1427	ATTOMETER CONTROLLER OF THE CO	9881
>	402	Leut yeser (Euchus) unraleuser (LeusanPhesertys) eru eunasanspas 4	121
; <u>-</u>	422	LePhellisMet SetLeuLeuAlaCysAlaLeuGluValValMetAlaThrTyrSerArg	141

```
2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HİTHILILILILI HITLILILI HITLILILI HITLILILI HITLILILI HITLILILI HITLILILI HITLI
2047 TGGAÇCELITTECAĞCAĞCAĞCETĞCAĞAALĞAĞI HIĞAREĞAAĞETÇATĞAĞAĞANANALALI G. 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2406
                           1627 AACTIGACAAGAAATGATAAAACATTTAGAAGGATGTGAACATGGAATCATGGAATCC 1686
                                                                                                                                                                                                                                      1807 ACTGCAGCAGATATGTATCTTCTCCTGTAAGATCTCCAAAGAAAAAAGGTTCAACTACG 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2467 ACACCAACAAAAIGACICCAAGAICAAGAAICTIAGIAICAAIIGGIGGAAICAIIGGGG 2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1447 ATTITICATAIGICITIATIGGCGIGGGGCIGAGGTIGIAALGGCACACAIAIGGCAGAIAIGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                          6.21
                                                                                                                                                                                                                     502 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuFleLysGlnSerLysAspArgGln 521
                                                                                                                                                                                                                                                                                                                                                 56.1
                                                                                                                                                                                                                                                                                                                                                                                                               58.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                622 TrpThricuPheCinHisThricuCinAssGlaTyrGlaix-uMetAr4AspAr4HisLeu 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7.21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          762 ThrProThrLysMetThrProArqSerArq11eLeaValSer11ea)yc3 aSerFhee3y 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                722 ProlleProHislieProArgSerProTyrLysPheProSerSerProLeuArgllePro 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             742 GlyGlyAsnileTyrileSerProLoulysSerProTyrLysileSerGluGlyLouPro 761
                                                                                            462 LeuAsnLeuLysAlaPheAspPheTyrLysVallleGluSerPheIleLysAlaGluGly 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        682 ArdVallculletysGluGluGluTyrAspSerlletleValPhetyrAsuSerValPhe 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        782 ThrSerGluLySPheGluLySlleAsnGlnMetValCysAsnSerAspArqValLeuLys R01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        482 AsnieuThrArgGluMetilleLysHisLeuGluArgCysGluHisArglleMetGluSer
                                                                                                                                                                                                                                                                                  522 SlyProThrAspHisLeuGluSerAlaCysProLeuAsuLeuFroLeuGluAsuAsuHis
                                                                                                                                                                                                                                                                                                                                                                                                           562 ArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   602 ArgleuAsnThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGluHisllelle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      662 PhetystletteValThrAlaTyrLysAspLeuProHisAlaValGlubluthrPhetys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   702 MetGlaArqLeuLysThrAsalleLeuGlaTyrAlaSerThrArqEroFroThrLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2287 ATGCAGAGACTGAAACAAATATTTGCAGTATGCTTCCACCAGGCCCCTACCTGCACA
                                                                                                                                                                                                                                                                                                                                               542 ThrAlaAlaAspMctlytLcuSerProValArdScrProLystystystyscrThrThr
                                                                                                                                                                       ò
                                                            <u>a</u>
                                                                                                                        9
                                                                                                                                                       οy
                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                 Q (1
                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                            ò
                                                                                                                                                                                                                    \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
.70 1 CIGGCAGAAATGACTTCTACTCGAACACGAAAIGCAAAAGCAGAAAATGAATGATAGCATG 2766
                                                                                                                                                                    84z LeuAlasluMetThrSerThrArqThrArqMetGlnLysGlnLysMetAsnAspSerMet 861
802 ArgSerAlaCluGlySerAsnPrePreLysProLeuLysLysLeuArgPheAsp??cClu 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HILLE OF INVENTION: MODIFIED RETINGBLASTOMA THMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM FC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWAPE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <INKNOWES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: 7..2691
SPQUENCE DESCRIPTION: SEQ ID NO: 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FRICE APPLICATION DATA: 09/026.459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                           2767 GATACCTCAAACAAGGAAGAGAAA 2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                    862 AsplhrSerAsnLysCluCluLys 869
                                                                                                                                                                                                                                                                                                                                                                            September 28, Application US/09469522
Patent No. US20020151461Al
GENERAL INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PAMPULER READABLE FORM:
MEDIUM TYPE: Ploppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 3455 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALTORNEY/AGENT INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIREEI: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TIRRENI APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO. 28: SEQUENCE CHAPACTERISTICS:
                                                                                                                                                                                                                                                                          *CRRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4266.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93.298
93.188
94.778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                hopotody. Tinear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bost Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                           US-09 469 522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ouery Match:
                                                                                                                                                                                                                                                                                                                                     RESILL 6
                                                                                                                                                                    Ś
```

```
115 PheThrPheThrGluLeuGlnLysAsnileGluIleGerValHisLysPhePheAsnLeu 134
                                                                                                                                                                                                                                                                                                                                                                                                     135 LeutysClufleAspThrSerThrLysValAspAsnAlaMetSerArgLeuteutystys 154
                                                                                                                                                                                                                                                                                                                                                                                                                      HHIIIIIHHIIHHIIHHIIHHIIHHIIHHIIHHHIIHHIIHHIIHHIIHHIIHHIIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            155 TyrAspValLeuPheAlaLeuPheSerLysLeuGluArqThrCysGluLeuIleTyrLeu 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               490 IGGATCACATITITATI AGCTAAAGGGGGAAATATACAAATGGAAGATGATGGGTGATT 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  550 TCATTICAGITAATGTTATGTTGTTGTTTGAGTATTTTATTAAAGTGTCAGG.3CCGATGTTG 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValAlaValileProlleAsnGlySerFroArqThrFroArq 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HILLHILLHILLHILLHILL
818 FTFAAAGAAFATATAAAAGASTISITATAADCAHIAALSSITCAGGIGSAAGAGAGGGG 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196 ArgClyClnAsnArgScrAlaArgllcAlatysClnLcuCluAsnAspThrArgllcllc 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           236 AspPhelleProPheMetAsnSerLouGlyLeqValThrSerAssSlyLeuProGlaVal 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          256 GluAsnLeuSerlysArgTyrGluGlufleTyrLcutysAsnLysAspLcuAspAlaArd 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276 LeuPheLeuAspHisAspLysThrLeuGlnThrAspSerfleAspSerFleGLuThuGln 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         296 ArgThrProArgLysSerAsnLeuAspGluGluValAsnVallleProProHisThrPro 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    316 ValArgThrValMctAsnThrileClnGlnLeuMetMctHelauAsnScrAsp 335
                                                                                                                                                                                                                                                                                                                                                                   250 TEGACTTTTACTGAGGTAAAAAAAAATGAAATGAGTGCATAAATTAACTTA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            670 CGAGGICAGAACAGGAGIGCACCATAGAAAACAACTAGAAAAIGAIACAAAAAITATI 729
                                  55 ProAspPheThrAlaLeuCysGlnLysLeuLys1leProAspHisValArgGluArgAla 74
                                                                                                                                                                                   75 TrpLeuThrTrpCluLysValSerSerValAspClyValLeuClyClyTrrllcClnLys 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    175 ThrGlnProSerSerMet.
US-09-026-459A-47 (1-869) x US-09-469-522-28 (1-3455)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 ---
                                                         qci
•••
                                        δ,
                                                                                                                                               CP
                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                        흔
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .a
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                골
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              슨
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  순
                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13
```

Tue Jan 21 10:04:27 2003

4.6. Christoser Glads of zer Priche Asnasa Cysthrva I Asnic Lys Gluse Hill Hill Hill Hill Hill Hill Hill Hil		155	
	nAsicysThrVaTAsiProLysGluser 	1149	선 
	ePhotysGluLysPhoalaLysAlaVal	375	ở đ
		1209	
	GLYSTIACH YCYSVATGTOTTACHYSACAGNAFATYTTYFT THEFT HELLIGHT HELLIGHT HELLIGHT HELLIGHT HELLIGHT HAN ABAGGT GGSAGLIGG AT TACAGAGGA I ACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAACTIGGAATACAAAAAAAAAA	395 1269	40 Dp
996 ArqValMetGluSerMetLevitysSerGluGluGluArqLeuSerTLeGluAsnPheSe. FITTHTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	uG1uArqueuSerTleG1nAsnPheSer    - - - - - - - - - - - - - - - - - -	415 1329	
416 Lystentenasnaspasnitethelismetsertentenaladysalatendinvalva 	rteuteubladysblateugfubalbal HEFFIFIFIFIFIFIFIFIFIT TTATTGGGGTGGGCTCTTGAGGTTGTA	4 45 1 389	4d
436 Metalathityrseratgserthiserghasnieuaspserglythraspieuserphe	nteuaspserdtythraspteuserbbe	455	λο αΩ
HTTLITTHITHITHITHITHITHITHITHITHITHITHITHITH		1449	— .
456 Profipile-Legaravalle-dasule-ulysalaphedspphetyrlysvalilegiuser	aPheAspPheTyrLysVallleGluSer	<b>4</b> 75	ბ ფე
		1509	
476 Phelictysaladiuolyasnicuthrangdiumetilelyshisloudiuangcysdiu	OMETITELYSHISLANGUARGCYSGLU	495	
		1569	
496 HISAFGLIGMOTGLUSCTLOUALATFPLOUSCRASPSCFPFOLOUPHEASPLOUL	rAspSerProLeuPheAspLeu1leLys	515	λο α <u>α</u>
HITHTHITHTHITHTHITHTHITHTHITHTHITHTHIT		1629	
516-GIBSPCLYSASPACHSTUCTPCTBTASPHISTERCTUSPCATACYSPCOLPUASBLEU THEFFILE HELLETHELLETHELLETHELLETHELLETHELLETHELLETHELLETHE 630-CAALGAAAGACGAQAAGAACGAACTGALAACTTGAATCGGTTGTGTTAATCTT	stendligerAlacysProLenAsbLeu HTTHTHHHHHHHHHHHH GCTGAATCIGGIGGCCTTAAICTT	5891	RESULT US-09-4 ; Seque ; Paten
5.46 Proteordinashashisthralaalaaspwettyricuserprovalargserprojys	tTytleuSerProValArqSerProLys	555	
		17 <b>4</b> 9	
556-1981/980198011br thraethvalastiscritizalaastaludhithroltaalafhriser	ralaasnalagluthrolnalathrser	575	-
		1809	
976. AtabbaGinThrollniysProfessiyysSerThrePriesBerLesBheTyrLysi	rseri ouseri.euphetyrtystysVal	595	. ;
		1869	
596 Tyrafdeglafiatyfleogrifiedargleolasofhrieolyschuargleolasofedhfispro	0CYSG1uArgiconicosorg1uHisPro	615	
		1929	
616 GIULOUGIUHISTICEITEITEITHITTOIPHOGINHISTHELUGINASIGIUT	nHistbriteuglinasiglutyrglubeu	635	
		1989	
6.45 Met Argaspachtisteraaspolntlemet Met Cyssermet Tyrolytheegyste 	COSSECTMENT TO THE COST PART OF THE PROPERTY OF CONTROL	655 2049	
656 Lysasn Heasplontyspolyspolyspolyspolythia prasplontronisala 11111111111111111111111111111111111	TTHE TOTAL SAND CONTROLLS AND ACAGEAT CANAGES TO A CONTROLL TO THE SAND A CONTROLL A CON	د٦٦ 2109	
626. Validhidhidh Phetysar qValidhidhidhidhidh dayraspser iler Tiftin billithidhidhidhidhidhidhidhidhidhidhidh	schchuchutyrAspseriteileval	695	

```
TICIATAACICGGICTICAIGCAGAGACTGAAAACAAAIATITIGCAGTAGCTICCACC 2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGOGAÇIĞI IĞELIĞELIÇAAAAĞAAĞI ÖELIĞAAĞGAAĞI AAÇEST COLIAAAY ÇACLICAAAAAA 2529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTTCAGGAGACATTCAAACGIGITTIGATCAAAGAAGAGGAGTATGATTCTATTAGTA_2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PheTyrAsnSerValPheMetGlnArqLeuLysThrAsnIleLeuGlnTyrAlaserThr 715
                                                                                                                                                                                                              SerProLeuArgIleProGlyGlyAsuIleTyrIleSerProLeuLysSerProTyrLys 755
                                                                                                                                                                                                                                                                                              IleSerGlaGlyLeuProThrProThrLysMe(ThrProArqSerArdIleLeuValSer 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuArqPheAspIleGluGlySerAspGluAlaAspGlySerLysHisLeuProGlyGlu 845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerlysPheGlnGlnLysLeuAlaGluMetThrSerlhrArgThrArgMetGlnLysGln 855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LITLE OF INVENTION; MODIFIED RETINOBLASIOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysMet.AsnAspSerMetAspThrSerAsnLysGluGluLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION NOMBER, 08,704,444,522
FILLING DATE: 22-Dec-1999
CLASSIFICATION: <0nknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P 40, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: P.O. Box 4434
CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NO. US20020151461A1
Al INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: TX
```

```
101 IlcCysllePhelleAlaAlaValAspLcuAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----GTCGACCTAGATGAGATGTCGTTCACTTTTACTGAGCTA 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 GlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeuLysGluIleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81 ValserserValAspGlyValLeuGlyGlyTyrIleGlnLysLysLysGluLeuTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141 SerThrLysValAspAsnAlaMetSerArgLeuLeuLysLysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        161 LouPheSertysLeuGluArgThrCysCluLeuIleTyrLeuThrGlnProSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                454 ATATCIACTGAAATAAATTCIGCATTGGTGAAAAGTTTCTTGGATCACATTTTATTA 513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  514 CCTAAAAGGAAGTATTACAAATGGAAGATGTGGGTGATTTCATTTCAGTTAATGCTA 573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTGTCCTTGACTATTTTATTAAACTCTCACTCCAAGTTGCTGAAAGAACGATATAAA 633
                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MetProProLysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                           21 ProAlaProProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41 AspleuProLeuValArgLeuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 CysGlaLysLeadysIleFroAspHisValArgGluArgAlaTrpLeuThrIrpGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7050
                                                                                                                                                                                                                                                                                                                                                                                                        US-09-026-459A-47 (1-869) x US-09-469-522-40 (1-3461)
                                                                                                                                                                                                                                                                                                                     Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                    Matches:
                                                                                                                                                                                                                                                                                                                                                      indels:
                                                                                                                                                                                                                                                                                length.
                                                                                                                                                                                          LOCATION: 7..2697
SEQUENCE DESCRIPTION: SEQ ID NO:
TELECOMMUNICATION INFORMATION:
                                                                                  LENGTH: 3461 base pairs
TYPE: nucleic acid
              TELEPHONE: 512/418-3000
TELEFAX: 512/474 7577
                                                 INFORMATION FOR SEQ ID NO: 40: SEQUENCE CHARACTERISTICS
                                                                                                                       SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                   4263.00
                                                                                                                                                                                                                                                                                                                   90.198
90.09%
                                                                                                                                            OPOLOGY Linear
                                                                                                                                                                                                                                                                                                                                                    $69 P6
                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                 Perceut similarity.
Best Local Similarity:
                                                                                                                                                                                                                                                                 Aliqument Scores:
                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                              US:09:469-522-40
                                                                                                                                                                                                                                                                                                                                                  Ottory Match:
                                                                                                                                                                                                                                                                                Pred. No..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             235
                                                                                                                                                                                                                                                                                                    Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :>
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
```

```
1174 GATATAGGATACATCTITAAAGAGAAAHTGCIAAAGCHGGGGGGGGGGGGGGGGGGGGGGAGA 1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1354 ATTTTTCATATGTCTTTATTGGCGTGCGTCTTGAGGTTGTAATGGCCACATATAGCAGA 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1414 AGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTCCCATGGATTCTGAATGTG 1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1534 AACTTGACAAGAGAAAATGATAAAAGATTTAGAAGGATGTGAAGATGGAATCATGGAATGC 1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 322 ThrileGinGinLouMetMetileLeuAsnSerAlaSerAspGinProSerGluAsniau 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      342 IleSerTyrPheAsnAsnCysThrValAsnProLysGluSerIleLeuLysArgValLys 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspileGlyTyrIlePheLysGluLysPheAlaLysAlaValGlyGlnGlyCysValGlu 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        382 lleGlySerGlnArgTyrLysLeuGlyValArgLeuTyrTyrArgValMetGluSerMet 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       402 LeuLysSerGluGluGluArgLeuSerTleClnAsnPheSerLysLeuLeuAsnAspAsn 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       422 IlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValWetAlaThrTyrSerArg 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            522~{\rm Cl}_{T} {\rm ProThrAspHisLouCluSerAlaCysProLeuAsnLeuProLeuGlnAsnAsnHis~541}
                                                                                                  242 AsnSerLeuGlyLeuValThrSerAsnGlyLeuFroGlaValdluAsnLeuserLyaAra 261
                                                                                                                                                                                                                                                                                                                                                                            874 TACGARANAATTTATGTTAAAAATAAGATCTAGAGATTATTTTTTTGTGTGAT 933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       302 AsnLeuAspGluGluValAsnValIleProProHisThrProValArqThrValMet.Asn 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrp11eLeuAsnVai 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               542 ThralaalaaspMetTyrLeuSerProValargSerProLysLysLysGlySerThrThr 561
                                                                                202 AlaangileAlangslinhesGluAshAshThrAngiletieGluVaihesCystysCim 121
                                                                                                                                                                                                                                                                                                                                                                                                                  LysThrLeuGlnThrAspSerlleAspSerPhcGluThrGlnArgThrPreArgLysSer 301
182 ValAlaValII@ProIl@AssGlyS@rProArgThrProArgArgGlySlcAsnArgSer
                                                                                                                                                                   222 HisGluGysAsnlleAspCluVallysAsnValTyrrheLysAsnPhelleProPheMet
                                                                                                                                                                                                                                                                                            814 AATTCTCTTGGACTTCTAACATCTAATGGACTTCCAGAGGTTGAAAATCTTFCTAAACGA
                                                                                                                                                                                                                                                                                                                                   262 TyrGluGlu:?eTyrLcuLysAsnLysAspl.cuAspAlaArgLeurhc..cuAspHisAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            482 AsnLeuThrArgGluMetIleLysHisLeuGluArgCysGluHisArgIleMetGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           502 | cuAlaTrpLcuScrAspScrProLeuPhcAspLculleLysGluSerLysAspArqSlu
                                                                                                                                                                                                                                                                                                                                                                                                                    282
                                       υp
                                                                                                                          g
                                                                                                                                                                                                         ç
                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                           12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \frac{2}{1}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                   ð
                                                                                                                                                                 ã
                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                          £
                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
```

```
THE HELLETH HELLETH FOR THE STATE OF THE STA
                                                                                                                                                                                                                                                                                                                                                                                               2194 ATGCASAGACTGAAAACAATITTGCAGTAGCTTCCAGCCCCCCTACCTGTGTA 2253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          722 ProffebroHis HebroardSorProfyrtysPhebroSerSerbrokeuarg Hebro 741
| HEHTHILLEH HEHTHILLEH HEHTHILLEH HEHTHILLEH HEHTHILLEH
2254 PYAATAPPTGAGATECPGAAYSCHTAGAAGTITGGTAGT (GAGGGTEGGT 2313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  782 (25.02-00) digity SPA of the particle and the Praban Scraspare (Value 1197) and the particle of the partic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HELLITH HELLIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2014 GACCAAATTATGATGTGTTCCATGTATGGCAAAGTGAAAGTATATAGACCTTAAA 2073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2494 AGAAGTGOLGAAGGAAGCAACCFCCTAAACCACTGAAAAAACTAGGCTTTGATATTGAA 2553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        %42 ArqValAmSerThrAlaAmAlaClaThrGlaAlaThrSerAlaPheGlnThrGlnLys 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         582 ProboutysSeribrSerbenSerbenPhetyrLystysValTyrArglenAlafyrLeu 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     602 ArglenAsnihaleuCyschuArgleuLeuSerGluHisProGluLeuGluHisHletle 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         642 ASPANIAN MATMATSANAMATTATOLYTTESYSIYSVALLYSASIATAASPACULYS 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               662 PhotystletleValthrAlafyrtysAsptenPreAlaValGInGInThrPhetys 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  682 ArqValLeufleLysGluGluGluTyrAspSerIlelleValPheTyrAsnSerValPhe 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MetGlnArqLeuLys1brAsn11eLeuGln1yrAlaSer1brArqProPro1brLeuSer 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                742 GlyslyAsmileTyrileSerProLeutysSerProTyrtysileSerCluslyLeuFro 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76.2 Thr ProThr LysMot Thr ProArd Sor Ard Heleuval Ser HeG1yG1uSer PheG1y 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    802 ArqserAlaGluGlySerAsuProProLysProLeuLysLysLeuArqPheAspIleGlu 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      822 GlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSerLysPheGlnGlnLys 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            842 LenAlasTumetThrSerThrArgThrArgMetGInLysGInLysMetAsnAspSerMet 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2574 (GLEFFELLIFILITIES 2597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Sequence 48, Application US/09459522
; Patent No. US20520151461A1
; GENURAL INFORMATION;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        862 AspIhrSerAsnLyseluGluLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US 09 469 522 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
```

```
127 GACCTGCCTCTCGTCAGGCTTGAGTTTGAAGAAAGAGAACAACOTGATTTTACLGCTATA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81 ValSerSerValAspGiyValLeuGlyGlyTyrIleGlnLySLySLySLySslsLeuTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 CysClnLysLeutysTeProAspHisValArqCluArqAlaTrpLeuthrTrpCluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21 ProAlaProProProProProProGluGluAspProGluGluAspProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MetProProLysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Renedict, William F.
Zhou, Yunli
TITLE OF INVENTION: MoDIFIED RELINGBLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-026-459A-47 (1-869) x US-09-469-522-48 (1 3383)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sensorval (vec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches:
                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 05/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <0nknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ndels:
                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC: FOS/MS-POS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: 7..2619
SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 09,7026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-4000
                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 3383 base pairs
                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: < Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALTORNEY/AGENT INFORMALION: NAME: Hibler, David W.
                                                                                                                                                        STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DALA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 48: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: nucleic acid
                                                                                              NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                              ZIP: 77210-4433
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4166.00
Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92.72%
92.16%
92.54%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FOPOLOGY: Linear
                                                                                                                                                                      CITY: Houston
                                                                                                                                                                                                                 COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME, KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity:
Query Match:
                                                                                                                                                                                           STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-469-522-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
```

70 30	101	The cystle Phelle Ala Ala Val Aspteu Asptalu Wet Ser Phelhr Phelhr Gluben	120 366
20 - 21 - 22 - 23 - 23 - 23 - 23 - 23 - 23	121	2] @hdiysAsmileGluileSerValHisLysPhePheAsmLeuLeuLysGluileAspThr 140 	140 425
oy Db	14:	SerthriysValaspasnalametSerargieuleulyslysTyraspValleuPheAla 	160 486
÷ 2	161	LeuPhesertysteucharqthroyschuteuthetyrLeuthrchnProserserSerSer 	180 546
\$ £	-1 E	MetValAlaValTleProTleAsnGlySerProArgThrProArgArgGlyClsAsnArg	200
ទី នី	102 165	Set Ala Argille Alaiys	206 634
<u>}</u>	207	dluLendluAsnAspThrArqllelledluValLeuCysLysGluHisGluCysAsnIle	226 675
수 급 당	424	ASPOLUVALLYSASHVALTYrPheLysashPhelleProPheMet	241
45 da	721	TATAAAACAGGGTCGAATTCTCTTGGAACTTGTAAAGACTAGGACTCGAGAGTTGAAA	256 780
2 G	781	AshlowserLysArgTyrthychilotyrLowLysAshLysAspLeuAspAlaArgLeu 	276 840
35 A	277 841	PhelouaspHisaspLysThrLeuGluThraspSerTleaspSerPheGluThrGlnarg	296
oy.	15.6 267	ChristoarglysSerAsnicuaspGluGluValasnValIleProProHisThrProVal	316 960
5 E	417	Argihrvalmet AsnihrileGlnGlnLeumetmet.TleLeuasnSeralaSeraspGln 	336
강 <u>술</u>	1021	Proserdudsnieuijesertyrbeasnasnysthrvalasnprolysdusertje 	356 1080
5 f	357 1081	LeulysargvallysAspileClyTyrilePbcLysGlulysPhcAlalysAlavalGly 	376 1140
3 G 3 G	177	<pre>dlidlygysVal61sI1edlySerGleargTyrLysLeuGlyValArgLeuTyrTyrArg</pre>	396 1200
\$ <b>5</b>	197	ValMetGluserMetLeuLysSerGluGluGluArqLeuSerIleGluAsnPheserLys	416 1260
A di	417	LCUI.CUASINASPASINI I CITICHI I SMCT. SCUI.CUALUCÇAA I ALÇASA I ALGA I VA I WETER THE	436 1320

517 SerigsAspArgClaClyProThrAspHisLeaClaSerAlaCystroLeaAshLeaPro 536 [1111] [111] [111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [111] [111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1111] [1 1800 1861 THAGAACATATCAACCTGCACCCTTTTTCCACCACACCCCCCCACAATGAGTATCACCTCATC 1920 2101 TATAACTGGTCTTGATGGAGAGATGAAAAVAAATATTTGGAGITHGGTHGGAGGAGG 1321 GCCACATALAGGAGAGGAGTAGATGTGAGATGTTGATTGTGGAACAGATTTGTGTTTGCGCA 1380 497 ArgileMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGln 516 597 ArgLeuAlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisProGlu 616 637 ArgAspArgHisLcuAspClnHcMctMctCysScrMct";prG);prHcCysHysVaHHys 656 697 TyrAsnSerValPheMetGlnArgLeuLysThrAsnlleLeuClnTyrAlaSerThrArg 716 SerGluGlyLeuProThrLysMetThrProArgSerArglleLeuValSerlle 776 437 AlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhePro 456 737 ProLeuArqIleProGlyGlyAsnIleTyrIleSerProLeuLysSerProTyrLysIle 756 477 HelysalacluslyasmenThrargeluMetHelysHisteuGluargCysGluHis 537 LeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLys 557 LysGlySerThrThrArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAla 577 PheGlnThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysVallyr 617 LeuGluHisIleIleTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMet 757 त्र ·. 0y Ξ £ õ qq g g õ дq õ ò â õ £ á ŏ **q** à ò 0.7

797 AspArqValLeuLysArqSerAlaCluClySerAsnProProLysProLysLeu 816

```
2521 AAATTTCAGTAGAAACTGGGAAAATGACTTCTACTCGAACAAGGAAAAGCAGAAA 2580
                                                                                                                                       847 LysphedinGinLysLeuAlaGluMetThrSerThrArgThrArgMetGinLysGlnLys 856
                                                           817 ArqPheAsp11eGluGlySerAspGluAlaAspGlySerLySHisLeuProGlyGluSer 836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILLE OF INVENTION: MODIFIED RETINGBLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3392
812
                                                                                                                                                                                                                                          857 Met Ash Asp Ser Met Asp Fhr Ser Ash Lys Gludlu Lys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM: PC DOS/MS-DGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IRM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: 7..2528
SEQUENCE DESCRIPTION: SEQUENCE DESCRIPTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 41,071 REFERENCE/DOCKET NUMBER: UT) TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                          Hu, Shi Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 22-Dec-1999 (CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                         Sequence 40, Application HS/09469522
Patent No. USZ0020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 3392 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROFEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <*Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Ribler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 77210 4433
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhou, Yuuli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4156.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93.14%
93.01%
92.33%
10
                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Xo, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAMEZKEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: IISA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATECTX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hest Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aliqument Scores:
                                                                                                                                                                                                                                                                                                                         US 09 469 522 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US UP 469-522-30
                                                                                                                                                                                                                                                                                                     RESULT 9
                                                                                                                                       2
                                                                                                                                                                                                                         Š
```

```
96 LysoluLeuTrp6ly11eCys11ePhelleAlaAlaValAspLeuAspalluMetSerPhe 115
                                                                                                                                                46.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197 GlyGlnAsnArgSerAlaArgileAlaLysGlnLeuGluAsnAspThrArgiletTeGlu 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        317 ArgibrValMetAsnfbrileGlnGlnieuMetMetfleLeuasnSerAlaserAspGln 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             337 ProSerGluAsnLeuIleSerTyrPheAsnAsnCysThrValAsnProLysGluSerIle 456
                                                                                                                                                                                         116 ThrPheThrGluLeuGlnLysAsn11eGluIleSerValHisLysPhePheAsnLeu 145
                                                                                                                                                                                                                                                                                                  156 AspValLeuPheAlaLeuPheSerLysLeuGluArgThrCysGluLeuIleTyrLeuThr 175
                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                  370 CAACCCAGCAGTICGAIATCTACTGAAATAAATICTGCATTGGTGGTAAAAGTTTCTTGG 429
                                                                                                                                                                                                                                                                                                                                                                                                                Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                       430 ATCACATTTTTATTAGCTAAAGGGGAAGTATTAGAAATGGAAGATGATCTGGTGATTTCA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            490 TTTCACTTAATICCTATGTCTTCACTATTTTATTAAACTCTCACTCCCA KGTTGTTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     237 PhelleProPheMetAsnSerLeuGlyLeuValThrSerAsnGlyLeuProGluValGlu 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               730 TITATACCITITATGAATICICITGGACTIGIAACAICIAATGGACITICCAGAGGTIGAA 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257 AsnicuSeriysArgTyrCluClullcTyriculysAsniysAspicuAspAlaArgicu 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    790 AATCTTTCTAAACGATACGAAGAAATTTATCTTAAAAATAAAGATCTAGAAGATGTA 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               277 PheLeuAspHisAspLysThrLeuGluThrAspSerIleAspSerPheGluThrGluArq 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           297 ThrProArqLysSerAsnLeuAspGluGluValAsnVallleProProHisThrProVal 316
                        56 AspRheThrAlaLeuCysGlnLysLeuLysLeProAspHisValAruGluArgAlaTrp 75
                                                    US-04-026-459A-47 (1-869) x US-09-469-522-30 (1-3392)
                                                                                                                                                                                                                                                                                                                                                       176 GlnProSerSerSerMet
                           ó
                                                 qq
                                                                               ò
                                                                                                      g
                                                                                                                                   à
                                                                                                                                                              2
                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

	436 1329 456 1389 476 1449	4 1 2 1 2 1	556 168' 576 576 596 596	616 636 24 636 24 646 24 646 24 646 24 646	7 4 0 C 6 4
LeutysargValtysaspliedlyTyrilePhetysGlutysPhealaLysalaValG CTGAAAGAGGATATAGAAATTIIIIIIIIIIIIIIIIIII	ikulkuashaspash Helhellishetisetteuleualags CHITTH HILLIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI CHITGAARASCA 1980: Thi Set Gluashteuaspset GLy CHITTH HILLIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIH			Argiculatyriculargiculanthriculcysclulargiculculsercludinistrocomicul of the property of the p	ASHILOASPLOUISSPOLISTIOTTANALTHANALTYFTSSASPLOUFOHTSALANA HILLIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
357 1090 377 1150 397	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	477 1450 497 1510 517	w w r, w r, r	597 1810 617 1870 637	657 1990 677 2050 647 2110
ne có ne có	5 2 5 2 5 2	6 4 6 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	8 6 8 6 8 8 6 6 8	\$ 6 5 6 6 6 6	6 6 6 6 6 6 6

```
2290 TCAGAAGGTCTGCCAACAACACAACAAAATGACTCCAAGATCAAGAATCTTAGTATGAATT 2349
                                                                                                                                                                                                                                         757 SerGluGlyLeuProThrProThrLysMetThrProArgSerArglleLeuValSerIle 776
                                                                                                                                                                                                                    777 GlyGluSerPheGlyThrSerGluLysPheGlrLysIlcAsnClnMctValCysAsnScr 796
                                                                                                                                                                                                                                                                                                                                                                                                                                           837 LysPheGinGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysClnLys 856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, no.,,
Hu, Shi-Xue
Hu, Shi-Xue
Bundedict, William F.
Zhou, Yunli
TITLE OF INVENTION MEDITIES FELLINGHLASTOMA TOMOR SUPPRESSOR
PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE. Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2590 ATGAATGATAGCATAGCATACCTCAAACAACAACAAA 2628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              957 MetAsnAspSerMetAspThrSerAsnLysGluGluLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION :NFORMATION:
TELEPRIONE: 512/4418-3000
TELEFRAX: 512/474-7577
INFORMATION FOK SEQ ID NO: 42:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENTE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P O Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US./04/469.522
FILING DATE: 22-Dec-1999
CLASSIFICATION: «UDKNOWN»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-00-469 522-42
) Sequence 42, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER PEADABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. US20020151461A1
GENERAL INFORMATION:
APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY. USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qu .
                                                                                                                                                                                    qq
                                                                                                                                                                                                                        δλ
                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                             ΟŻ
```

LENGTH: 3347 base pairs

```
81 ValSerSerVaiAspGlyValLeeGlyGlyTyrfleGlnLysLysClsLeeIrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 GluLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeuLysGluIleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141 SerThrLysValAspAsuAlaMetSerArqLeuLeuLysLysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ------GCTAAAGGGGAAGTATTACAAATGGAAGATGATGTGGTGATT 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        442 TCATTICAGITAATG-----CTAIGIGICGTIGACTAITTTAATAAACICICACCTCCC 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     --- AlaValIleProIleAsnGlySerProArgThr 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      194 ProArqArqGlyGlnAsuArqSerAlaArqIleAlaLysGlnLeuGluAsnAspThrArq 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     244 PhetysAsnPhetTeProPheMetAsnSerLeuGlyLeuValThrSerAsnGlyLeuPro 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101 HeeystlePhelleAlaAlaValAspLeuAspGluMetSerPhelhrPhefhrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       307 ATCTGTATCTTTATTGGAGGAGTTGACCTAGTCGAATCT------ACTGAAATA 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161 LeupheSerlysLeuGluArgThrCysGluLeuHeTyrLeuThrGluproSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          214 HetleGluValLenCysLysGluHisGluCysAsnileAspGluValLysAsnValTyr 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      THEFTER HITTER THE THEFT HITTER HITTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41 AsplanProLouValArqLouGluPheGluGluThrGluGluProAspPhethrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 CysGlnLysLenLysIleProAspHisValArqGluArqAlaTrpLeuThrTrpGluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MetProProLysThrProArglysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFECTOR OF COMPANY OF THE FEMALE OF THE FEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   355 AATTOTOCATTOGTGCTAAAAGTITTCTTGGATCACATTTTTATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US 09 026 459A 47 (1 869) x 0S 09 469-522-42 (1-3347)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative.
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    indels:
                                                                                                                                                                                                                                                                                                             LOCATION: 7..2583
SEQUENCE DESCRIPTION: SPQ ID NO: 42:
                                                                 STRANDEDNESS: single
IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4142.00
93.72%
92.81%
                                                                                                                            Pollodody: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             800.76
                                                                                                                                                                                                                                                  NAMEZKEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181 Met Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity:
query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                   US 09 469 522:42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
```

```
10 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16.45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1156 TATTACCGAGTAATGGAATCCATGCTTAAATCAGAAGAAGAAGATTATCTATTGAAAAT 1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1396 GAAAGIPTTAPPGAAGGAAAGGAAFTPGAGAAGAAAAAAGAFTTFAGAAGGA 1455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      594 LysValfyrArqLeuAlafyrLeuArqLeuAsnfhrLeufysGluArqLeuSerGlu 614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            * 6.
* 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            474 GluSerPheileLysAlaGluGlyAsnLeuThrArgGluMet.lleLysHisLeuGluArg 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ري
دي
                                                                 274 AlaArqLouPheLeaAspHisAspLysThrLou7InThrAspScrileAspScribedIn 293
                                                                                                                                                                                         * * *
                                                                                                                                                                                                                                                                                                                                                                                         916 ACTCCAGITAGGACTGITATGAACACIATCCAACAATAATGATGATGITTAAATTCAGAA 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       394 TyrTyrArgValMetGluSerMetLeuLysSerGluGluGluArqLeuSerlLeGluAsn 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         414 PheserLysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAladysAlaLeuGlu 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     434 ValValMetAlaThrTyrSerArgSerThrSerGInAshLeuAspSerGly1hrAspLeu 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        614 HisproGluteuGluHislletletrpTbrLeuPbeGluHisTbrLeuGluAsnCluTyr 633
736 GAGGIIGAAAAICIIICIAAACGAIACGAAAAAATIIAICIIAAAAAIAAAAATITAGAI 799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  314 ThrProValArgThrValMetAsnahrTleGInGInLeuMetMetHleLeuAsnSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                       334 SerAspG1nProSerCluAsnLeulleSerTyrPheAsnAsnCysThrValAsnProtys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         494 CysCluHisArgileMetGluSerLeuAlaIrpLeuSerAspSerProLeuPheAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             514 The systimser system of the system of th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         534 AsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArqSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           574 ThrserAlaPheGlnThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLys
                                                                                                                                                                                                                                                                                                                                                              qq
•••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q (1
                                                                 ô
                                                                                                                           2
                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                        ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \stackrel{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
1936 AAGTGAAGAATATAGAACCTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTTGCT 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1116 | 1902 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2296 GIAICAAIIGGIHAALAAWHORAGHWWWGAGAAGTHGAGAAAAAAAAYAAYGAGGA 2355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   771 VALSON LOG (§***) (SON PERON) (SON DEL TANDE SON PERON) (SON P
FOR THE COMPTANTASEA (BEST CONSTRUCTION OF THE TWENTY (CONTRACTOR)
                                                                                                                                                                                                                                                                                                                               654 TysVallysAsmileAspleutysPhetys!leffeValThrAlaTyrtysAspleuPro 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               674 HisAlaValGlnGluThrPheLysArqValLeuIleLysGluGluTyrAspSerIle 693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              314 SerthiargProProThileuSerProlleProHisTleProargSerProTyrLysPhe 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             734 ProSerSerProLeuArg11eProGlyGlyAsn11eTyr11eSerFroLeuLysSerFro 753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             754 TyrtystleSerGlaGlyLeaProThrPtoThrLysMetThrPtoAtgSerAtgileLeu 773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            794 CysAsuSerAspArqValLeuLysArqSerAlaGluGlySerAsnProProLysProLeu 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           914 (ystyst.cuArgPhcAsplicGluGlyScrAspGluAlaAspGlyScrt,ysHist.cuPro 833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  834 GlyGluSerLysPheGlnGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGln 853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2536 AAGCAGAAAAIGAAIGATAGCAIGGATACCICAAACAAGGAAGAAA 2583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         854 LysGlnLysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hu, Shi-Xuc
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 44, Application US/09469522
Patent No. US20020151461A1
GENERAL INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 77210-4433
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US:09-469-552 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
```

```
81 ValSerSerValAspGlyValLeuGlyGlyTyrIleGlnLySLySLySGluLeuTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101 IleCysIlePheIleAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141 SerThriysValAcpAsnAlaMetSerArqLeuleulysIyrTyrAspValLeufheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161 LouPhoSortysLeuGlaArqThrCysGlaLeaTleTyrLouThrCharDerCarSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 MetValAlaValHeProHeAsnGlySerProArgThrProArgArgGlyGlnAsnArg 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             247 GTTTCAPGGGATGGAGTATTGGGAGGTTATATTCAAAAGAAAGGAAGTGTGGGGA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 GlnLysAsnileGlulleSerValHisLysPhePhcAsnLeuLcuLysGlulleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21 ProAlaProProProProProProSluGluGluGluGlnAspSerSlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4] AspienProLenValArgLenGluPhecluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 CysClnLysLcuLysIleProAspHisValArgGluArgAlaTrpLeuThrIrpGluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                307 APCTGTATCTTTATTGCAGCAGTTGACCTA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3:61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-026 459A-47 (1 869) x US 09-469-522-44 (1-3161)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sunscruative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length.
Matches:
                  A-1112411R RUMHIEL -2,05,469,522
FILING DATE: 22-Dec-1999
FLASSIPIONION - 70KNOWN>
PRIOR APPLICATION DATA:
                                                                                                                                                                                               REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UIXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE DESCRIPTION: SEQ 1D NO: 44:
                                                                                                          APPLITCATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                  TELEPHONE: 512/418-3000
FELLEAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                       LENGIH: 3161 base pairs
                                                                                                                                 FILING DATE: <Unknown>
                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 44: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7..2397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4098.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              91.71%
91.71%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91.038
                                                                                                                                                                                                                                                                                                                                                                                                                          FOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Persent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aliqnment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JS-09-469-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                윤
```

							4											
390	220 450	240 510	260	280	300	320 750	340 810	360	380 930	400 990	420 1050	440 1110	460 1170	<b>4</b> 80 1230	500 1290	520 1350	540 1410	560
- GCTGTTATACCATTATGGTTCACCTCGAACACCCAGGGGGGGG	Seralaarg Healalgschaleuchbashaepthrazgilechechuvaileucysbys 	Obuffiss) ogsaðarí kragoðuðufugskanvalfyrfhetysborðhettefreble Hittili Hittili Hittili Hittili Hittili Hittili Hittili Hittili Hittili Obaralíðarðarðuðar af aðarðarðarðarðarðarðarðarðarðarðarðarðar	Mot AudSorteoubly Loovaliths Serassoly Leuprodlauvaloludass Lousserlys 	AFGLYFGLUGLU HETYFLOULYSASPLOUASPALAUSPALAUSPECUORSPHE HELLIH HELLER HELLIH GGATATTTTGGATGAT	AsplysTbileuGlnTbrAspSerTDeAspSerDbeGluTbrGlnArgTbrProArgLys 	Ser AsnicouAspeloidiu/ValassiValiieProProHisThrProValArqThrValMet 	ASBIDIT LEGIDGE BECKENMET BELGBASINSET ALASOTASPGEDPROSETGIAASBITTELLE FELLELLE FELLELLE FELLELLE FELLELLE FELLELLE FELLE FELL	Leut LeserTyrbheashashCysThrValAshProLysGluSerTJeLeutysArgVal 	5/848p1  e017Tr11ePheLys01uLysPheAlaLysA1aVa101y01s01}CysVa1 	GTUTTEGTYSETGTUALGTYTLYSTROUGTYVATALGENTYFTYFATGVATMEFGTUSET TTTTTTTTTTTTTTTTTTTTTTTTTG GAAATTGGATCACAGGGATACAAGTTGGAACTTCGGTTGTATTACCGAGTAATGGAAFCC	Met taeutysserrituchuntenrepaser (TechnashPesertysteutenashasp TELLITELLITELLITELLITELLITELLITELLITELL	ASBITTOPPOHISMETSETTENTENALGOSSALGIENGTOVGIVALMETALGITALTYSSET HILLITTOPPOHISMETSTITTOPPOHISMETSET AN WITTOPPOHISMETSTATATTOGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	A) GEOCHER GOOTHAS GOOGLAS AS GOOTHAND CONTROLLED TO THE CONTROLLE	VelleenAsuleenLysalatheAsptheTyLysyvalITeGTusertheTteTySalaGTu - FEETELLEETETTETTETTETTTTTTTTTTTTTTTTTTT	GLYASHLeufhtrargGluMet IleLysHisLeuGluArgCysGluHisAruHeMetGlu 	Sectional at plicusor Aspser Proteurboasplicuttotten Helysofinser Lysasparg 1411   HELLER HER HELLER	oliwiliyteofunAspilist euthuserAladystrau euasulaaperol euthuasulasi TELLELELE ELETTELLELELELE ELETTELLE TELLELELE ELETTELLE ELETTELLE ELETTELLE ELETTELLE ELETTELLE ELETTELLE ELETTE	. BisThrAlaAlaAspMetTyrFerSerProValArgSerProEysEysEysGysEyFThr ++++++++++++++++++++++++++++++++++++
111	107	221 451	2411	5.7.1	281 6.41	1	121 751	ž = = = = = = = = = = = = = = = = = = =	46.1	181 9.41	401	421 1051	441	46.1	481	105	5.21	5.4.1
÷	5- A	<u>۾</u> ج	્ર હ્	হ ২	કુ ફ	्र खु	۶- ÷	रु ब	ਲ ਉ	हु <u>ब</u>	는 <u>교</u>	≿ स	<i>2</i> . 4	कु क	कु ख		7. .e.	÷

```
2011 CCTGGAGGAACATCTATATTTCACCCTGAAGAGTCCATATAAAATTTCAGAAGGTCTG 2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2311 AAACTGGCAGAATGACTTCTACTCGAACACGAATGCAAAAGCAGAAAAAATGATAGC 2370
1411 CACACTGCAGCASATATGTATCTTTCTCCTGTAAGAFCTCCAAAAAAAAAAGTTCAAATT 1470
                                                                                                                                                                                                                                                                                                                                                                                                                 1771 AAATTCAAAATCATTGTAACAGCATACAAGGATGTTGGTGATGCTGTTAGGAGACATTG 1830
                                                                                                                    760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       821 GludlySerAspGluAlaAspGlySerLysHisLeuProClyGluSerLysPheGluGln 840
                                                                                                                                                                     601 LeuArgleuAsnThrLeuCysGluArgleuLeuSerGluHisProGluLeuGluHisTle 620
                                                                                                                                                                                                                                        621 HeTrpThrLeupheCluHisThrLeuGlnAshCluIyrCluLeuMetAraAspArqHis 640
                                                                                                                                                                                                                                                                                                                                                                                661 LysPhetysTleTleValThrAlaTyrLysAspleuProHisAlaValGinGln1hrPhe 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      701 PheMetGluArqLeuLysThrAsulleLeuGluTyrAluSerThrArqProProThrLeu 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerProlleProHistleProArgSerProTyrLysPheProSetSetProLeuArg11e 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            761 ProThrProThrLysMetThrProArqSerArq11eLeuValSer11ed}ygluserphe 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      801 LysArqSerAlaGluGlySerAsnProProLysProLeutlysLysLeuArqPheAsplle 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841 LysteuAlaGluMet fhrSerfhrArgThrArgMetGluLysGluLysMetAsuAspSer B60
                                                                                                                                                                                                                                                                                                             641 LeuAspGlnIleMetMetCysSerMetTyrClyIleCystysValtycAstIleAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                 681 LysArgValleuHetysGluGluGluTytAspSerHeHeValPhetytAsnSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         741 ProClyClyAsnileTyr11cSerProLealysSerProTyr11ys11cSerClaClyLea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 ClythrserclutysPheClnLysTleAsnGlnMetValCysAsnSerAspArqValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     581 LysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTy:AraLeuAluTyr
                                                                                                                                                                                                                                                                                                                                                                                               2371 ATGGATACCTCAAACAAGGAAGAGAAA 2497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              861 MetAspThrSerAshLysGluGluLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 42, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ...
...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                        ΟŽ
                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                               QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                    S
                                                                                                     ζ
                                                                                                                                    <u>a</u>
                                                                                                                                                                      5
                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
```

Hu, Shi-Xue

```
99 TrpGlyIleCysIlePheIleAlaAlaValAspLeuAspGluMetSerPheThrPheThr 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79 GluLysValSerSerValAspGlyValLeuGlyGlyTyrileGlnLysLysLysGluLeu 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zhou, Yunli
IIILE OF INVENTION: MODIFIED RETINORIASTOMA THMOR SHPPRESSOR
                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: P1-antin Pelease #1.0, Version #1 30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/469,522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3323
789
1
1
59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-026-459A-47 (1-869) x US-09-469-522-32 (1-3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches:
Conservative
Mismatches:
Indels:
                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE, Almold, White & Durkee
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE, TROUGHER - HTXC+506 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: CDS
LOCATION: 7..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 32:
                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
Benedict, William F.
                                                                                                                                                                                                                                                                                                        FILING DATE: 22-Dec-1999
CLASSIFICATION: /mnknown>
                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: 512/418-3000
FELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 32:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGIH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: <Unknown>
AITORNEYZAGENT INFORMATION+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                               NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4024.50
92.94%
92.82%
89.39%
                                                                                                                                                                                         COMPUTER PRADABLE FORMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FOPOLOGY: linear
                                                                                                                                                            COUNTRY: USA
21P: 77210-4433
                                                                                                                               CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Bost Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
```

ΩÝ	179	Sul SurMet	181
선			369
Qy	80		181
qn	370	ATIGGAAGATGATCTGGTGATTTF	429
Qy	8		181
qq	430	ATGCTATGTGTCCTTGACTATTTTATTAAACTCTCACCCCATGTTGCTCAAAGAACCA	489
$\circ_{Y}$		3) ySerProArgThrDroArgArgGlyGlnAs	199
qu	490		4
07	č	uAsnAspTh	
ig.	2	SAAAATGATACAAGAATTATTGAAGT ICTCTG	609
ä i	C 0	LyschuHischucysAsnIleAspiluValLysAsuValTyrPheLysAsnFhe11eFt	239
로 (	Ξ.	NAAATTTTATACC	699
5 5	670	File	20.7 20.7 20.7
ä	ũ9	rgleuPhele.As	57.6
qo	30		687
δ	÷	IsasptysThrLeuGlnThrAspSerIleAspSerFheGluThrGlnArqThrProAra	568
DP	06	AGAGAACACCACG	849
Qy 1	300	LysSerAsni.euAspGluGluValAsnVallTeProProHisThr ProValAtyThrVal	319
a ;	0 0	CAGLIAGGACTGI	606
0.7 0.0 0.0	320 1	MetAsoffhrilliotioCinCaMetMetTieLeuAsisserAlbaserAsofthictoSerdiu [	596 688
č	<b>C</b>	erileLeulysAr	25.0
Ę	7.0	AATCEGATTECTATTTTAAGAACTGCA/AGIGAATGGAAAAGAAAGIAGAAAAGA	500T
Ğλ	0	ValLysAsp11cClyfyr11cPhcLysCluLysPhcAlatysAlaValClyClnClyCys	379
qq	C	rgaganagarrg	0
δ		ValGluIleGlySerGlnArqTyrLysLeuGlyValArqLeuTyrTyrArqValMetGlu	66
QQ	90	ACCGAGTAATGGA	
6 6	400 8	SerMetLeuLysSerGluGluGluArqLeuSerIleGlnAsnPheSerLysLeuLeuAsn 	or c
3 8	2	STANKLITTIONS	<b>1</b> 0
r i	-	ATATGTCT	439 1269
Qy	40	ArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrplleLe	いつ
QQ	7.0	TITITITITITI	1329
Qy 4	90	SnLeuLysAla	44.79 0.00 0.00 0.00
6 6 6	80	TGTGCTTANTITANANGGCTTTGATTTTTACAAAGTGATCGAAAAGTTTTATCAAAAGT NGTAASDTGGTTTAAAGTUMGETTGAAAGTGGGGTAAAGCASGTAHTSATGTTGG	n on

```
ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ें
1 FOR GANGGCARCHIGHTER CONTROL OF THE CONTROL OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2050 OFFICE HILLER OFFICE HILLER HILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HERTHITH HITTER AND A STANFOLD AND A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1450 GAATCCCTTGCATGGCTCTCAGATTCACCTTAATTGATCTTATTAAACAATCAAAGGAC 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1630 ACTACGCGTGTAAATICTAGTGCAAATGCAGAGACACAAGGAAGGTCAGGCTTGGAGAGG 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1870 CATHIGGACGAATTAFGATGIGITGGATGTAGGATATGGAAAAGFGAAGAATATAGAG 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1570 AATCACACITGCAGCAGAIAIGITATCITICICCCIGITAAGAIGICGAAAAAAAAGGITCA 1629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2170 ATTOLEGGAGGAACATCTATATTFCACCCCTGAAGAGTCCATATAAAATTTCAGAAGGT 2229
                                                                                                                                                                                                                                                                                                              500 GluSerLeuAlaTrpLeuSerAspSerProfæuPheAspLeuIleLysGluSerLysAsp 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            520 AradludlyProThrAspHisLeuGluSerAlaCysProLeuAsaLeuProLeuGlnAsn 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540 AsuHisThrAlaAlaAspMetTyrLeuSerProValArgSerProLysLysLysLysGlySer 559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 700 ValtheMetGluArqLeuLysThrAsuIleLeuGlnTyrAlaSerThrArqProProThr 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720 LeuSerProlleProffisIleProArgSerProTyrLysPheProSerSerProLeuArg 739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       740 HerrodlyGlyAsallelyrilleSerProLeulysSerProTyrLysHeSerGluGly 759 HillittillHillHillHillHillH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         760 LeubroThrProThrLysMetThrProArgSerArgIleLeuValSerIleGlyGluSer 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780 PheGlyThrSerGluLySFheGlnLySIleAsnGlnMetValCysAsnSerAspArqVal 799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         800 leutysatgsetaladiudlysetasuptoptolysproleutystysteuarqpheasp 819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 820 ThedludlySerAspoluAlaAspolySerLysHisLeuProdlyGluSerLysPheGln 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840 clubysteuAlasluMetThrSerThrArgThrArgMetClubysGlnLysMetAsnAsp 859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              980 GlubysProfentlysSerThrSerLenSerLenPheTyrLysLysValTyrArqLeuAla 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600 TyrLeuArdlæuAsnThrLeuCysGluArgLeuLeuRerGluHisProdluLeuGluHis 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   620 HelletrpthrtæufbedinfistbræudhasnGlutyrGlutæumetarqasparq 639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               680 PhetysArqValLeulletysGluGluGluTyrAspSerlletleValPhetyrAsnSer 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           =
```

```
21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MetProProLysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: MODIFIED RETINOBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
APPLICATION DATA:
FILING DALE: 22-Dec 1999
CLASSIFICATION: <UDAKnown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-026-459A-47 (1-869) x US 09 469-522-38 (1 3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: 01XC:505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches:
                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels:
                                                               2530 AGCATGGATACCTCAAACAAGGAAGGAAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 7..2559
SEQUENCE DESCRIPTION: SEQ ID No: 48:
                                        860 SerMetAspThrSerAsnLysGluGluLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: THM PC comparible
                                                                                                                                                                                                                                                         Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM LYPE: Floppy disk
                                                                                                                                                            Application US/09469522
                                                                                                                                                                                                                                                                                                                             PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 4324 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                         STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
                                                                                                                                                                                                                       APPLICANT: Xu, Hong Ji
                                                                                                                                                                                                                                               Bu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4991.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   85.148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 77210-4433
                                                                                                                                                                               : Patent No. US20020151461Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                         US-09-469 522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-469-522-38
                                                                                                                                                                Sequence 38,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

3~	77	oLeuValArqLeuGluPheGluGluThrGluGluProAspPheThrAlaLe	09
۵	9.6		96
٠	.79	cqAlaIrpLeuThrTrpGluLy	8.0
تہ	3.6		96
;~	<del>-</del>	rValAspClyValLcuClyClyPyrfloGlnly8Fy8Lys	100
ھ			96
<u>د</u> <	101	I eCystlePheileAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLe 	120
ى <i>ت</i> . ≺	21 3.6	GIDLYSASDILEGIUITESEVALHISLYSPREPREASDLEULEULEULIASGLUTLAASPT 	4 0
⊳ .a	141 196	Ser Ihriys ValAspashalaMet Serargicul.eulysiys IyraspValicubheala 	
ъ <u>Б</u>	161 256	LeuPheserLysLeuGlüArgThrdysGlüLeuIleTyrLeuThrdlüProSerSerser 	∞
ъ.	œ : :	NeT	œ
<u>.</u> تــــــــــــــــــــــــــــــــــــ	316	ATATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACATTTTTATTA	<b>-</b>
۰. ۵	121	SCIAAAGGGGAAAGTATAAAATGAAGATGATGAGTGATTTCATTTCAGTTAATGCIA	m a
244	181		$\infty$
ي.	4.56	TGTGTTFGAATTATTTTTTTAAACTTTTFGAATTTTGTTGAAAGAAGGATATAAA	5
شد	182	ValAlaValileProlleAsnGlySerProArgThrProArgArgGlyGlnAsnArgSer 	0
ش د	202 556	ATARTAT CALACTES DINGES LASIASETHANDET CONTROLLES CONTR	221 615
ئد جد	222	#ISGLUCYSASELLeASpGLuValLysAsnValTyrPheLysAsnPheLleProPheMet	7
> 44	242	AsnSerLeadlyLeaValThrSerAsnGlyLeaProGlaValGlaAsnLeaSerLysArg	
5× .2	262	lyrcluclullefyrteulysasnlysaspteuaspalaargleufheleuasp 	သော ဇာ
تد حد	282	LysThrLeugluThrAspSerTleAspSerPheGluThrGlnArgThrProArqLysSer 	0
شد	40.2 85.6	AsoleoaspoludluvalasnvalileProProHisThrProValargThrValMetAsn 	
ي ش »:	422 916	THE LEGISCING INCOMPT MOTE HELCIAS IN SETAIN SETAINSETAS DG THE PROSE OF THE PROPERTY AND ACTAL CANCOLOGY.	7 4

	40	342	ILESECT; FPREACHASCO; STRIVA]ASHELOL; SOLILEELEHLSOARGVAHLYS   3	361 1035
	Cy Dp	352 1036	ASFILCTYPYTISCPECTSCLEDSCHOOLS         3           HITHILLHILLHILLHILLHILLHILLHILLHILLHILLH	381 1095
	oy ob	382	:TectySerClnArgTyriysLeuGtyValArgLeuTyrTyrAtgValMetGluSerMet 	:01 :155
	<b>A</b> 0	402	TortysSerglud) aglazej ousertleginaspibesetiyeteuloukunkerksa   HTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTH   CTTAAATGGAAAGAACCATA OCALICAAA HTTAGAAAGTITGIAA LAAAAAA	121 1215
	oy Db	422	IcthedismctScriculcuAlacysAlaLcuGlaValValMetAlaThrlyrScrArg	141 1275
	Q0 Op	442	SerThrSerGinasnicuaspSerGiyThraspicuSerFheProTrpHeLuaasnVal 4 	\$61 1335
	Cy Dp	462 1336	LeudsscleubysalabbedspPheTyrLysValIleGluScrPhcIleLysalaGluGly 4	‡81 1395
	Qy Db		Ashlouthrargclumetilolyshisloucluargcyscluhisargilometcluser	501
	Oy Db	502	LeuAlaTrpLcuSerAspSerProt.cuth.chspi.cutleTysG1n8ctiysAspAtudiu 	521 1515
	9. 0.05	522	GlyProThraspHidLeuGluSeraladysFroLeuAsdieuFroLeuGluAsmanHis 5 	541 1575
	Oy Db	542 1576	ThralaalaaspwetTyricuSerProvalarysciProjssiysciyscryhribri 	561 1635
	Qy Dh	562 1636	ArgVaTASBScribraTaAsbaTaGTufbrGTbATa7brScraTaPbcGtbtbrGTbtTys 	581 1695
`	, ac	582	ProLeuLysSerThrSerLeuSerLeuPhcTyrLysLysValTyrArqLeuAlaTyrLeu 	501
·. ;	67. Dis	602 1756	Arg.cuasarii: Leucyssiuargicuieusersishisirosla.cuclunisilciic 	521 1815
	0.y	622 1816	Trpthilosphochallsthischilospolatyrdisteumetargasparglisten ( 	541
	5% Dp	642	642 AspolntiemelMetCysSerMetTyrolytlecyoLysValLysAantleAspLetLys 	661 1935
	oy Db	662 1936	Photystic:levalthralatyriysaspicchroffsalavaldindluthrhhutys 6 	381 1995
	20 20	1996	Argvali out Lougschoforburgraspschifellevelphetyrasusorvalehe 	701 2055
	ó	7.02	MetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSerThrArgProProThrLeuser 7	72.1

```
2.55 AGAAGGGGGAAAGAAGAAGCTCCTAAAACAGAAAAACTAGGAAAAACTAGGAA 2415
                                                                                                                                                                                                                                                                                                                                                                                                                                    2116 CCAALACCECAALECTGAAAGCCHACAAAGTLIGCHACAGTGACGHTACGGATTGCT 2175
                                                                                                                             782 ThroneollabystheothepsileActGluMetValOysAshSerAspArqValLeuLys 801
                                                                                                                                                                                                                                                                                                                                                             802 ArqSerAlaGluGlySerAsnProProLysProLeuLysLysLeuArqPheAspl1eGlu 821
                                                       722 ProlleProHisileProArdSerProTyrLysPheProSerPeroLeuArqIlePro 741
                                                                                                                                                                   2176 GGAGGGAA ATGTATATTTGAGGGTGAAGAGTGGATATAAAATTTGAGAAGGTGTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.2 LevdAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM FC COMPATIBLE
OPERATINE SYSTEM: PC-FOS/MS DOS
SOFTWARE: Patentin Release #1.0. Version #1
CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/469,522
FILING DATE: 22 Dec 1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCEZDOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hu, Ski Xue
Benedict, William F.
Zbou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2536 GATACCTCAAACAAGGAAGAAAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          862 AsprhrserAsnlyschudlulys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 34, Application 05/09469522
Patent No. 0820020151461Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 512/418-3000
TELEPAX: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: < Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AT FORNEY, ZACTENT INFORMALLON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: P.O. BOX 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Xu, Honq.Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SECREBICES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 77210 4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US 09 469 522 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
                                                         Š
                                                                                                                               5
                                                                                                                                                                   ź
                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                     =
                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
```

```
117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       118 ThrGluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeuLysGlu 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              138 ILCASPThrSerThrLysValAspAsnAlaMetSerArgleut.gstystysTyrAspVal 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         158 LeuPheAlaLeuPheSerLysLeuGluArqThrCysGluLeuIleTyrLeuThrGluPro 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   40.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <del>=</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            310 TITTTATTAGTTAAGGGGAAGTATTACAAATGGAAGATGATCTGGTTTTCATTTCAG +69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     370 TTAATGCTATGTGTCCTTGACTATTTATTAAACTCTCACTCTCATGTTGCTCAAGAA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              182 -----ValAlaValIleProlleAsnGlySerProArqThrProArqArqGlyGln 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 430 CCATATAAAACAGCTGTTATACCCATTAATGGTTCACCTCGAAACACCAGGAGGTCAG 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199 ASDARGSCTATAATGITOALASGIDLOUGIDASDASPIDIATGITOTTOVALILOU 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            490 AACAGGAGTGCACGGATAGCAAAACAACTAGAAAATGATACAAGAATTATTGAAGTTCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               550 TGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTATTTGAAAATTTTATA 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               239 ProPheMetAsnSerLeuGlyLeuValThrSerAsnGlyLeuProdluValGluAmmLeu 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 610 COTTITATGAATICTCTTGGACITGTAACATGTAATGGACITGCGAGGGTTGAAAATCTT 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 670 TCTAAACGATACGAAGATTTATCTTAAAAATAAAGATCTAGAAGATTATTTTG 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        279 AspHisAspLysThrLeuGlnThrAspSerIleAspSerPheGluThrGlnArqThrPro 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10 CTGTGGGGATCTGTATCTTTATTGCAGGAGTTGACCTAGATGAGATGTGTGTTTTT 69
                                                                                                                                                                                                                                                                                                                                                                                                                              98 LeuTrpGlyIleCysIlePheIleAlaAlaValAspLeuAspx3luMetSerPheThrPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       250 AGCAGTICGAIATCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTCTTGGATCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          259 SerlysArgTyrCluClulleTyrLeubysAshLysAspleuAspAlaArgleuPheleu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-026-459A-47 (1-869) x US:09-469-522-44 (1-4266)
                                                                                                                                                                                                                                                                                             Constructive:
Mismatches:
                                                                                                                                                                                                                                                                         Matches:
                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                  indels:
                                                                                                                                                                           4.
                                                                                                                                                                                                                                                                                                                                                        Sdeo
                                                                                                                                                       EOCATION: 7..2502
SEQUENCE DESCRIPTION: SEQ ID
                                  LENGTH: $266 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
INFORMATION FOR SEC 1D NO: 34: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                         3940.50
                                                                                                                                                                                                                                                                                           92.78%
92.66%
                                                                                               TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                87.31%
                                                                                                                                    NAMEZARY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          178 SerSerSerMet.
                                                                                                                                                                                                                                                                                       Ferent Similarity.
Best Local Similarity:
                                                                                                                                                                                                                                Aliqument Scores:
                                                                                                                  FEATURE:
                                                                                                                                                                                           US-09-469-522-34
                                                                                                                                                                                                                                                                                                                                  Query Match:
                                                                                                                                                                                                                                                    Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             급
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
```

```
HELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLITTELLIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1990 GAATGGATAAAAGGAAGAAGGATTATCCATTGAAAATTTTAGCAAACTICIG 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1210 TATAGCAGAAGTACATCTCAAGAATCTTGATTCTGGAACAGATTTGTCTTTCCCATGGATT 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1276 OTGAATGIGGITAATITAAAAAGCCITIGATITITAAAAAGIGATCGAAAGTTTTATCAAA 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1990 ATGGATGCCTTGCATGGCTCTCAGATTCACCTTATTTGATCTTATTAAACAATCAAAG 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1450 GACCGAGAAAGAACTAATTAATTAATTAAAATGTGGTTGTGCTGTLAABGTTGCTGGAG 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1630 ACCASANACATTGAAATCTACCTCTCTTTTTCACTTTTATAAAAAGTGTATGGCTA 1689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      399 GluserMetLeulysSerGluGludaAgleuSer11eGlnAsnPheSerLysLeuleu 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      979 throllitysProLeulysSerThrSerLeuSerLoutheTyrLysLysValTyrArgLeu 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999 AlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGlu 618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            639 Andrews Aspectation with the President of the President of States of Sta
299 AralysserAsnLeuAspGluGluValAsnValIleProProHisThrProValArqThr 318
                                                                                                                                                                                                                                                                                                                                                                                                                    319 ValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnSerAlaSerAspGlnProSer 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  850 GITATGAACACIAICCAACAAIIAAIGAIGAITTIAAAAIFCAGCAAGIGAICAACCITCA 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   339 GludsnieurleSerfyrPhedsnAsnCysThrValAsnProLysGluSerfleteulys 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (5) ArqValLysAspileGlyTyrilePheLysGluLysPheAlaLysAlaValGlyGlnGly 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      379 CysValdlulleGlySerGlnArqTyrLysLeuGlyValArgLeuTyrTyrAraValMet 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     419 AsnAspAsnIlePheHisMet.SerLeuLeuAlaCysAlaLeuGluValValWet.AlaThr 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    439 TyrserArdSerThrSerGluAsnLeuAspSerGlyThrAspLeuSerPheProTrpIle 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               459 i.euAsnVallieuAsniculgsAlaPheRpPheTgrigsVallicCluScrPheilergs 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  477 Met GluserLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGlnSerLys 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     959 SerThrThrArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGln 578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   c: e. itst[at] at replict out the classical base of the content of the content and the content of the content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91 SAAAATUTGATTTCCTATTTTAACAACTGCACAGTGAATCCAAAAGGAAGTATACTGAAA 969
                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 نَّ
آنَّ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
```

```
1870 GANCTTAAATTCAAAATCATTGTAACAGCATAQAAGGATCTTCCTCATGCTGTTCAQGAG 1929
                                                                                                                                                                                                                                                                                                                                           2410 CAGCAGAAACTGGCAGAAATGACTTCTACTGGAAGAGGAATGCAAAAGGAAAAGAAALGAAL 2469
                                                                                                                                                                                              719 ThrLeuSerProIleProHisIleProArgSerProIyrLysPheProSerSerProLeu 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   699 SerValPheMetGlnArgLeuLysThrAsnIleLeuGlnTyrAlaSerThrArgProPro 718
                                                                                                                                                                                                                                                                                                                          759 GlytheuProThrEpsThrLysMetThrFroArgSerArglleLeuValSerlleGlyGlu 778
                                                                                                                                                                                                                                                                                                                                                                                         779 SerPheGlyThrSerGluLysPheGlnLysIlcAssGlcMetValCysAssSerAspArg 798
659 AspLeuLysPheLysIleIleValThrAlaTyrLycAspLeuProHisAlaValGlnGlu 678
                                                                                                                                            799 ValicalgsArgScrAlaCluClgScrAsaProProtysProtectigstystewArgPho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Benedict, William F.
Zhou, Yunli
INVENTION: MODIFIED RETINGBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2470 GATAGCATGGATACCTCAAACAAGGAAGAAAA 2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  859 AspSerMetAspThrSerAsnLysGluGluLys 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Attold, White & Burkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US 09 469 522-3
, Sequence 3, Application 05/09469522
; Patent No. 0520020151461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALL N N'WHIR HE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE. Arrold, Whi
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AFFLICANT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LITLE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                .
O
                                                                                                                             ò
                                                                                                                                                            Q
G
                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                         dd
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                       d
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
```

Tue Jan 21 10:04:27 2003

```
113 MetSerPheThrPheThrGluLeuGlnLysAsnIIeGluIIeSerValHisLysPhePhe 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       133 Asutoutoutys@lufleAspihrSerThrtysValAspAsnAlaMetSerArgteuteu 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..... valAlaValileProlleAsnGlySerProArgThr 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 46. ATGTTGCTGAAAGAACCATATAAAACAGCTGTTATACCATTAATGGTTCACCTGAACA 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        194 ProArgArgGTgTthAshArgSerAlaArgTTeAlatysGInLeuGluAshAspThrArg 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              234 PhetysAsnitherTeProPheMetAsnSert.euGlyt.euValThrScrAsnGlyt.euPro 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 247 OLI PETEGGALCACALITIALI AGELAAAGGGGAAGTATTACAAATGGAAGATGATGTG 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407 GEGALTIPALTEPAGE FAALGTALGIGGEFGAGTAFFTFALFAAAGIGGEGGGGGGGGG366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     547 TICAAAAATTIIATATACCIIITAIGAATICICIIGGACIIGTAACAICTAAIGGACIICCA 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ? ATCTCGTTCACTTTACTGAGCTACAGAAAAACATAGAAATCACTGTCCATAAATTCTTT 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187 TATTTGACACACCAGCAGTTCGATATCTAGAAATAAATTCTGGATTGGTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          173 TyrtauthrelinProSerSerSerMet ----- ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US U9 026 459A 47 (1 869) x US-09-469-522-3 (1-3218)
                                                                                                                                                     REGISTRATION NUMBER: 41,071
REFERENCE/DOCKEL NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels:
APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE DESCRIPTION: 
                                                                                                                                                                                                                                 TELECOMMUNICAL FOR INFORMALION:
                                                                                                                                                                                                                                                                            TELEPHONE: 512/418 3000 TELEFAX. 512/474 2577
                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGIH: 3218 base pairs
                                          · [][[K1]()WI] ·
                                                                        ATTORNEY (ASTENT THE PMATTOR)
                                                                                                                   NAME: Hibber, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEC ID NOT 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3849.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92.658
92.528
85.518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 019 469 522 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ĩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ت
ت
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \frac{\hat{z}}{\hat{z}}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
```

```
1207 TCTTTCCCATGGATTCTGAAIGTGCTIAATTTAAAAGCCTTTGATTTTLACAAAGTGATC 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1027 TATTACCGAGTAATGGAATGCATGCTTAAATGAGAAGAAGAAGGATTATGGATTCAAAAT 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1567 ACCICAGCCITCCAGACCCAGAAGCCATTGAAATCTACTTCTCTTTCACTGTTTTATAAA 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1627 AAAGTGTATCGGCTATCTCCCGCTAAATACATTITGTGAACG CTICLGTCTCAG 1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          447 AATCTTCCTCTCGAGAATAATCACACTGCAGAATAIGIATCTTTCTCCIBIAAGATCT 1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 594 TysValTyrArqLeuAlaTyrLeuArqLeuAsnThrLeuFysCluArqLeubeuGerGlu 613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            667 GCAAGATTATTTTGGATCATGATAAAACTCTTGAGACTGATYCYALAGACAGATTTTGAA 726
                                                                                                                                                                                       ÷
                                                                                                                                                                                                                                                             334 SerAspGlnProSerGluAsnLewIleSerTyrPh@AsnAsmCysThrVulAcnProLys 454
                                                                                                                                                                                                                                                                                                    906
                                                                                                                                                                                                                                                                                                                                        907 GAAAGTATACTGAAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAA 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        394 TyrTyrArqValMetGluSerMetLeuLysSerGluGluGluGluArqLeuSerIleGluAsn 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 414 PheSerLysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGlu 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        434 ValValMetAlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeu 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SerPheProTrp11eLeuAsnValLeuAsnLeuLysAlaPheAspFheTyrLysVall1le 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           474 GluSerPhelleLysAlaGluGlyAsnLeuThrArqGluMetileLysHisLeuGluArq 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    494 CysGluBisArgIleMetGluSerLeuAlaTrpLeuSerAspSerFroLeuFheAspLeu 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             514 HeLysGluSerlysAspArqqludlyProThrAspHisLougluSerAlacysFroLau 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            614 HisbrogluLeugluHisileileTrpThrLeuPheGluHisThrLeugluAsnGluTyr 6++
607. GAGGTTGAAAALCTTTGLAAAGGALAGGAAGAALLLALGTLAAAAALAAAGALGTAGAL-666
                                   274 AlaArqLeuPheLeuAspHisAcpLysThrLeuGiuThrAspSerilt Aspaierthesitu
                                                                                                            294 ThrGinArgThrProArgLysSerAsnicuAspAluGluValAsnVallLeProProBis
                                                                                                                                                                                 314 ThrProValArqThrValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnSerAla
                                                                                                                                                                                                         374 AlaValGlyGlnGlyCycValGluIleClySerSlnArqTyrLystaud;yValArqtau
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 574 ThrserAlaPheGlnThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLys
                                                                                                                              554 ProLystystysOlySerThrThrArqValAshSerThrAlaAshAlacluThrGluAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      534 AsnLeuProLeuGlnAsnAsnHistbrAlaAlaAspMetTyrLeuSerProValArqSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                å
                                                                                                                                                                                                                                                                                                                                                                       DP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                       a
                                                                                                            ò
                                                                                                                                            ä
                                                                                                                                                                                     ć
                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

653 1806	673 1866	93 926	713 1986	733	753 2106	773 2166	793 2226	813 2286	833	853 2406	
GBulleumet ArgAspArgHisLeuAspGlnIlemetMetCysSerMetTyrClyfleCys 	LysVallysAscilleAsplexLysPheLysIleIleValThrAlaTyrLysAsplexDFO	HISALAVALGINGUI brebetysargvalleutletysgludluglufyraspsertle 6	IleValPheTyrAshSerValPheMetGlnArgLeutysThrAshIleLeuGlnTyrAla	SerThrArdProProThrLeuSerProlleProllislleProArdSerProTyrLysPhe	Proder SerProtental (PProGlyCLyAsh) CTYL (I CSerProtentysSerProtent) (PPROTEIT) (PPROTEIT) (PPROTEIT) (PPROTEIT) (PPROTEIT) (PPROTEIT) (PROTEIT) (	TyrrysllesergludlyLeuproThrProThrLysMetThrProArgSerArglleLeu 	ValseriledlygluserbleclythrserglulysphedillyslleasnglumetVal 	Cysashisetaspatgya heurysargseralagiugi yseraspptoptolysptoleu + 17 17 17 11 11 11 11 11 11 11 11 11 11	Lystystendropheaspilegludlyseraspoludladspolysertysfilsteupro TITTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	31yG1USerLysPheGlnGlnLysLeuAlaGluMeLThrSerThrArgThrArgMetGln !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	FlysChilysMetAsnaspScrMctaspThrScrasnlysCluGluLys 869 
6,44	1807	£24 1867	편 10 3 (1) 4 (1)	714 1987	7.84	21.47	224.7	734	814	R 14	854
ŝ ŝ	हे हैं इ	5 63 5	5 É	र्ज ∄	5 1	5 = 2	Ś Ē	5 9	5 3	\$ 45 15	\$5 E

Search completed: January 19, 2003, 05:46:21 Job time : 156.436 sees

```
Sequence 1, Appl Sequence 2, Appl Sequence 4, Appl Sequence 1930, A Sequence 1990, A Sequence 296, Appl Sequence 183, Appl Sequence 11, Appl Sequence 11, Appl Sequence 2, Appl 
                                                                                                                                                                                                            Appil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 145, App
Sequence 369, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 15490, A
Sequence 15490, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 359, Appl Sequence 55, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 267, App.
Sequence 6127, Ap.
Sequence 70, Appl.
                                                                                                                                Appli
                                                                                                                                                                                                                              Sequence 4, Appl Sequence 44, Appl Sequence 46, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 175, App
                                                                                                              Appri
                                                                                                                                                                                                                                                                                                            Sequence 37, Appl
                          Sequence 28,
Sequence 40,
                                                                                                                                Sequence 42,
Sequence 42,
                                                                                                                                                                                                            Sequence 44,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of a manhag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TILLE OF INVENTION: MODIFIED RELINGBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.00 CURRENT APPLICATION DAIA
                                                                                                                                                                                                                                                                                                                            1 03 04 770 657 1

1 05 09 25 676 2

105 09 220 671 44 1

1 05 09 864 761 414 1

2 05 09 864 761 414 1

2 05 09 864 761 19910

20 09 974 824 296 20 2546

6 05 09 815 242 9859

6 05 09 815 242 9859

6 05 09 815 242 9859

6 05 09 815 242 9859

10 05 09 854 864 1154

10 05 09 954 864 1164

10 05 09 954 864 1164

10 05 09 954 864 1164

10 05 09 964 864 1164

10 05 09 964 864 1164

10 05 09 964 864 1164

10 05 09 964 864 1164

10 05 09 964 864 1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-864-864-346
US-09-960-254-145
US-09-801-368-369-
US-09-864-761-15490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          864-751-32004
864-761-15490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           469-522-42
469-522-42
469-522-42
469-522-38
469-522-38
                                                                                                                                                                                                                                    * 44
* 5.
APELITATION NUMBER, USCUSSIGNATED SELECTIONS DATE: 22-Dec-1999 CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALTONMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: HW PC COMPATIBLE
OPERATING SYSTEM: PC DOS/MS-LOS
                                                                                                                                                                                                                                                                                                          767-60-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Benedict, William E.
Chou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 48. Application 05/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. BOX 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SECUENCES; 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SSEGIOVAL AND SEPERSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Hong : Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ни, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
ZIP: 77210-4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36.24
6773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10300
                                                                                                                           3347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26.37
100.96
101.96
10211
10211
4754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATCLE NO. OSCODOISTABLE GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                               3747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CIIY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-469 522-48
                                                   4256
                                                                           4166
                                                                                                                           4052
                                                                                                                                                                                                      3923.5
4842.5
4799
                                                                                                                                                                                                                                                                                                                               515.5
                                                                                                                                                                                                                                                                                                                                                                                                                                          218
177.5
145.5
145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   142.5
142.5
142.5
142.5
141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          145.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             141.5
  4417.5
                                                                                                      4149.5
                                                                                                                                                                              1984
                                                                                                                                                                                                                                                                                                            765
                                                                                                                                                                                                                                                                                                                                                                                     37.5
                                                                                                                                                                                                                                                                                                                                                                                                                  243
                                                                                                                                                                                                                                                                                    3667.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        129.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
                                                                                                                           Mandel Lanner practication of the Mandel DEV-x1b and Mandel Lanner practication of the Mandel DEV-x1b and Communications and Communications and Communications and Communication and Communi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. App. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 48, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 143, App
Sequence 7, Appli
                                                                                                                                                                                                 (without alignments)
6107.852 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                         January 18, 2003, 04:31:54 ; Search time 64,5823 Seconds
                                                                                                                                                                                                                                                                                                                                  ] MPPKIPKKIAAIAAAAAEP........RMQKQKMNDSMDISNKEEK 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A sets. 12 to state, 3 pulpour 1809 PUROME seq. *
A set 2 (Attorist of Apubpour 1810 - NEW_PUB. seq.)*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zanaz Azprodara Zizpubpną 20560 NFW 2018 seg 🖈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               žegniz šyprodara/lypubpna/Used_DonwinMk seq.*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Published, Applications_NA:*
[1] **int * Yr*data,*(3) Open,*(Us5/)_pUBs.OMB.seq:*
2] Jeanz 6/prodata,*(1/pubpan,*prT NBW_pUBs_cap**
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zequiz 6/prodata/i/pubpha/USIO PUBCOMB seq
                     Copyright (c) 1993 - 2003 Compuger Ltd.
                                                                                                                           nucleic search, using frame_plus_pin model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0 08 09 469-522-48
0 08-09-469-522-1
08 09 954 541-143
0 08-09-860-211-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           191868 seqs, 222314149 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                          Xqapop 10.0 , Xqapext
                                                                                                                                                                                                                                                                                                                                                                                                                                        Ydapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Equiport
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.0 , Deleyt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post processing: Minimum Match 0%
Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB Seq lendth: 0
Maximum DB Seq lendth: 2000600000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              U9 U26 459A 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ouery
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                     Yqabob 10.0 ,
Fqapop - 6.0 .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ¥ ## ¥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 45.55
48.89
                                                                                                                                                                                                                                                                                                                                                                                     MINOSHIME?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          annual line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9.84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dopag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4436
4447.5
4447.5
4437.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Section
                                                                                                                                                                                                                                                                                                                                                                                     Scoring tables
                                                                                                                                                                                                                                                                                                    Perfect Score:
                                                                                                                           protein
                                                                                                                                                                                                                                                                                                                                    Secpretaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               attabase.
                                                                                                                                                                              MOTO OTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ressult
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ž
```

96,6,7

```
Pl ValcerservalAspilyValLevilyilyTyrIledInfsLysLysCluLeuIFpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [2] ManysAsanHeGhalleSerValHisLysPhePheAsnLeuLeuLysGlufleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :41 serThrLysValAspAsnAlaMet.SerArqLeuLeuLysLysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161 couphesertystenGluArgThrCysGluLeuTleTyrLeuThrGlnProSerSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              547 ATALCTACTGAAATAAATTCTGCATTGGTGCTAAAAGTTTFCTTGGATCACATTTTATTA 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   231 AlaLysGlyGluValLenGlnMetGluAspAspLeuVallleSerPheGlnLeuMetLeu 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21 ProAlaProProProProProProGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41 Asprouero euvalary eugluebegluglufhrgluglueroAspehefhralaleu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 PysGluLysLeutysfleProAspHisValArgGluArgAlaTrpLeuThrTrpGluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101 TlocystlePheileAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3383
871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09 026 459A:49 (1-871) x US-09-469-522-48 (1-3383)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
                                                                                                          REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
IELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    i si opul
PRIOR APPLICATION DATA: APPLICATION NUMBER: 09,026.459
                                                                                                                                                                                                                                                                                                                             LECATION: 7..2619
SEQUENCE DESCRIPTION SEQ ID NO. 48
                                                                                         41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 3383 base pairs
                                FILING DATE: «Unknown»
ATTORNER, AMERICAGE
NAME: Hibler, David W.
REGISTRATION NUMBER: 41
                                                                                                                                                                TELEFAX: 512/474 7577
                                                                                                                                                                              INFORMATION FOR SEQ TO NO: 48:
SEQUENCE CHAPACIEPISTICS:
                                                                                                                                                                                                                                      TYPE, nucleic acid
SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                         4496.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.00%
                                                                                                                                                                                                                                                                           TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hest Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                       All-qument Scores:
                                                                                                                                                                                                                                                                                                                                                                    69 469 522-48
                                                                                                                                                                                                                                                                                              FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
```

```
1087 AGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAAAGCTGTGGGACAGGG1 1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1327 IAIAGAGAAGIACAICICAAGUIGAIGUIGGAACAGAIIIGIGIIIGGCAIGGAII 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1447 GÇAGAAGGÇAAÇTITGAFAAGAGAABISAYAAAAÇATITIAGAAÇGATIGIGAACA1CCAATIC 1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 341 GludsmleuileSerTyrPheAsnAsnCysThrValAsnProLysGluSerHeLeurys 360
                                              421 AsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThr 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            441 TyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrplle 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481 AlaCluGlyAsnLeuThrArqGluMetileLysHisLeuGluArqCysGluHisArqIle 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541 AshAshHisThrAlaAlaAspMetTyrLeuSerFroValAruSerFroLysLysLysGly 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 ThrolyserAssserLeuGlyLeuValThrSerAsnGlyLeuProGluValGluAsnLeu 260
                                                                                                                                                                                   261 SerLysArgTyrGluGlufleTyrLeuLysAsnLysAspLeuAspAlaArgLeuPheLeu 280
                                                                                                                                                                                                                    787 ICTAAACGATACGAAGAAAITIAICITAAAAAIAAAGAFCIAGAIGCAAGATATTTTG 846
                                                                                                                                                                                                                                                                                                                                                                                      321 ValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnSerAlaSerAspGlnProSer 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381 CysValGluIleGlySerGlnArgTyrLysLeuGlyValArgLeuTyrTyrArgValMet 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                501 MetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGluSerLys 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                52) AspangelselyPrombraspHisterelacysPreMeuAsmacaProLeuGln 540
                                                                                                                                               727 AGAGGGGGGAATTGTGTTGGAGTTGTAAGATGTAATGGAGTTGGAGGTTGAAAATGTT 786
                                                                                                                                                                                                                                                   301 ArglysSerAsticeuAspSlaGlaValAsnVallleFroFroHioThrFroValArgThr
                                                                                                                                                                                                                                                                                                                                      461 ArgValLysAspIleGlyTyrIlePheLysGluLysPheAlaLysAlaValGlyGlnGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                               Ξ
                                                                                                                                                                                   ó
                                                                                                                                                                                                                   Ġ
                                                                                                                                                                                                                                                                                    1
                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      습
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \circ
                                                                                                                                                                                                                                                    3
```

```
THE THEFT HELLET                                                                                     1687 TCAACTACGOSETAAAFICTACTAGAADSSAGAAGAAGAAGGAAGCTGAGGTICCAG 1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2227 CCALTCCTCCACCCATCTATATTCACCCTCAACACCCATATAAATTTCAGAA 2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22M7 GOLGIGICAACAACAAAAAAAAAAGAGAAGAAGAAAACTAAGAALGAALTGGLGAA 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2.447 FPATTPOGGACTICTGAGAAGTTGAGAAAATAAATGAGATGGTATGTAACAGGGAGGT 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2527 CAGCAGAAACTGGCAGAAATGACTTGTACTCGAAGAACGAAAAGCAGAAAATGAAT 2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1927 ANN ALL FOR A CAAATTA FOATOTOT FOCATOTO FOO AND A TOCAAAACT GAAGAATA FALLAAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              681 ThrehetysArqVallzeulletysGluGluGluIyrAspSerifelleValPhetyrAsn 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     761 GlytauprothrerothrtysmetThrProArgSerArglletauValSerfleGlyGlu 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   821 AsptiteGinGlySerAspGinAlaAspGlySeri.ySHiSLenProGlyGluSerLySPhc 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841 cludinLysLeuAlaGluMetIhrSerThrArgThrArgMetGlnLysGlnLysMetAsn 860
                                                                                                                                                                                                                                                                                                 601 AlatyrtænArgtæuAsnfhrfæutysstuArgteuteutserstuffisProstuttentstu 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     621 HISTICLICITPHALLOUPHOTHRISTATIONGINASHGINYFOTHIGUMELAIGASP 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 701 SerValPheMetGInArqueySihrAsnileLenGlniyrAlaSerihrArqProPre 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       741 ArgileProOlyGlyAsalielyrIleSerProaeulysSerProJynysHeSerGlu 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        281 SerPheGlyThrSerGluLysPheGluLysTleAsnGluMetValCysAsnSerAspArg 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                801 ValleollysArdSerAlaCluSiySerAsnProProLySProLeollySLySLeuArqPhe 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              861 AspsorMetAsplhrSerAsmlysdludinLys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Benediet, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application 08/09469522
Falent No. 0820020181461A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zhon, Yundi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, Hong 'ii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US JUY 44.9 5.22 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PESULI 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
```

PROTEINS

```
101 HeCystlePhetleAlaAlaValAspLeuAspCluMetSerrhethrPhethrGlubeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   247 STTTCATCTGTGGATGGAGTATTGGGAGGHAJATLCAAAAGAAAAAGGAA71610303GA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       807 ATCHGITICTITATIGCAGCAGITCACCIAGAIGAGAIGAGAITCACITILACTCAGCIA 34.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l MetProProLysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41 AspteuProteuValArqteuGluPheGluGluIhrdluHroAspPhetBrAlateu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 CysClnLysLeuLysIleProAspHisValArqGluAraAlaTrpLeuThrTrpGluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  THE HITTER HITTER THE TELEVISION OF THE TELEVISI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21 ProAlaProProProProProProGluciaAspProCluciaAspSerGlyProClu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWAKE: Patentin Release #1.0, Version #1.4 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Consorvative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-026-459A-49 (1-871) x US-09-469-522-1 (1 4555)
                                                                                   ADDRESSEE: Arnold, White & Dirker
STREET: P.O. BOX 4443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEGISTRATION NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NOMBER, 08709/3409/5122
FILLING DATE: 22-Dec-1999
CLASSIFICATION: «Unknown»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Letter h:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mdels:
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: 18M PC compatible OPERATING SYSTEM: PC DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: 7.2790
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :sdpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/474 7577
                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 35-55 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: < Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
NUMBER OF SEQUENCES: 51
                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4447.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SECTION NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPOLOGY, Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98.928
                                                                                                                                                                                                                                                                                                         ZIP: 77210-44++
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: COS
                                                                                                                                                                                CllY: Houston
                                                                                                                                                                                                                                                                    VSO
                                                                                                                                                                                                                     STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity:
                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-469-522-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q(† ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĉ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
```

Schilyser   Schi	LeuleulysGlulleAspThr 140 	rAspValleuPheAla 160 	∞ <b>4</b>	0 0	PheGlaboumetLeu 220 	LysGlubrofyrLys 240 	4 8	 4	 STITIATG 90	Asnicuscriysarg 263 	PheleuAspUlsAsp 283 	Thrproardlysser 303 	ArgThrVaiMetAsn 323 	ilnProserGluasnieu 343 	leLeuLysArqValLys 363 	alClyClnClyCysValClu 383 		uLeuAsnAspAsn 423	icis <b>an</b> i aThriyr
	Oldysantledlutteservathistysphepheasnleute	CThchsValaspasoAlaMetScaArgleouteoupsEpsTy 	PheserLysLeug 	SerthrGluffeAs  - - -	aLysklyslyValle 	HetaspijrP Hillili Mergaciali		ACGGATAGCAAAAQ	TGAATGTAATATAG	iSerleudlyleuva Frittilili TTCTCTTGGACTTG	Juslailetrri HEL HILLEL SAAGAAAITTATC	euglothr              TCAGACI	ruaspoluolu  - - - - - - - - - - - - - - - - - - -	CTTEGTRISTINERMETMET, TLE LEUAS IS SEKALAS SEKAS PG 	EASALTYEPHAASAASSOYSTBEVALASBPECLYSGUSGET. 	o Hediyiyri lebhelysciulysbbedialysAlav. Filli Hilli Hilli Hilli Hilli Hilli Hilli Fatasgatacatettaaa/sgaaattgetaaaeete:	ledlyserdinarafyrlysbeudlyValargbeufyrf FFELFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	erGluGluGluArqLeuSerIleGlnAsnPhes	SAWAANAAAN WATITITI HSMctSerkeukeuAkaCysAkakeuGkuValV
	1.2.7	141	1.01 1.83 1.83	181	291	22.1		 T:		344		× 01	் ம	7 +	**	12.4	Y: "N	200	

```
1567 CTTAATTTAAAAGCCTTTGATTTTACAAAGTGATCGAAAGTTTTATCAAAGGC 1626
                                                                                                                                                                                                                                                    1627 AACTIGACAAGAGAAAIGAIAAAACATITAGAAGGAIGIGAACATGGAATGAIGGAAIGG 1686
                                                                                                                                                                                                                                                                                                                                                                                               2047 TOGACCETE FREGACIACIO COCAGAATGAGIATGAACTCATGAGAGAGAGAGAGAGTTIG 2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2107 GACCAAATTATGATGTTCCATGTATGGCATATGCAAAGTGAAGAATATAGACGTTAAA 2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2167 TTCAAAATCATTGTAAGAGGATAGAAGGATGTTGCTGATGGTGTTCAGGAGAGTTGAAA 2226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2287 ATGCAGAGACTGAAAAAAAAAATATTTGCAGTACTTCCACCAGGCCCCTACCTIGTCA 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2407 GGAGGGAACATCTATATTTCACCCTGAAGAGTCCATATAAAATTTGAGAAGGTCTGCGA 2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2467 ACACCAACAAAAATGACTCCAAGATCAAGAATCTTAGITATCAATTGGTGAATCATTCGGG 2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2347 CCAATACCICACATICCICGAAGCCCTIACAAGIIICCTAGIICACCCIIACGGAIICCI 2406
                                                                                                                                    504 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGlnSerLysAspAraGlu 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              584 ProLoutysSerThrSerLouSerLouPheTyrLysLysValTyrArgLouA:aTyrLou 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    624 TrpThrLeuPhcGlnHisThrLeuGlnAsnGluTyrGluLeuMetArgAspArgHisLeu 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                664 PhotystlettevalThralaTyrtysAspteaProHisAlaValGinGluThrPhotys 683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    744 GlyGlyAsmIloTyrIloSerProLeutysSorProTyrIlgSerGluGlyLeuPro 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            764 ThrProThrLysMetThrProArgSerArg11eLeuValSer11eGlyGluSerPheGly 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       784 ThrSetGluiysPheGluiysTeAsnCluMctValCysAsnSetAspArqVaTheniys 803
                                                       444 SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrplleLeuAsnVal 463
                                                                                                                                                                                                             484 AsmLeufbrargGlumet HelysHisLeuGluargCysGluHisargHemetGluSer
                                                                                                                                                                                                                                                                                                                                                                        524 GlyProThrAspHisteuGluSerAlaCysProf.cuAsnLcuProf.cuGlnAsnAsnHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          684 ArgValLeuTJeLysGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              724 ProfteProffsfleBroargSerProffyrtysPheProSerSerProtearallePro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                564 ArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ۇ.ئ
⊶.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \frac{1}{2}
                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

ValSer        GITICA	101 The Cystle Pheffe Alavalas pleuas polumet Ser Pheffurburghung 120 . HILLER	121 Chrisbarileduilessevalificis, epactaala da dassiliolessethr 140   HTTLEFFE HTTLEFFE HTTLEFFE HTTLEFFE HTTLEFFE HTTLEFFE HTTLEFFE   498 CAGAAAAACAIAGAAAATCAGIGCAIAAATTCITIAACTIACIAAAAAAAAHGATAGE 557	141   SerthriysValaspasnalametSerarqueuteutystystyraspValueutheala   160   1111111111111111111111111111111	161 LeuPheserLysLeuGiuArqThrCysGluta-ulleTytLeuThrGlutaGoserSer 180 	181 IleserfbrölufleasnsoralaLeuVallaeutysValserfrytleithribateuru 200 	201 Alatyschychavalleachmerchuasfaspleavallieserbechnicumentas 220 	221 CysValleunspäyfikellelysleerseffichromet beutaabyssiaficiyilig 111111111111111111111 798 TGIGCCHGACHATTIATTAAAGICTCACCICCAGHOTTCHAAAAAAAAAAAAA BS7	241 Thr		91B GGASGATAGGAAAA, AA TAGAAAATGATAGAAGATATTATTGAAGTTCTCTGTAAAGAA 977 24.3	978 CALGAATGTAATATAGATGAGAGAAAAATGTTTAFTTCAAAAATTTTATACTTFTATG 1037	244 AsusertouchytenvalThrserAsuchytentrothytehthabanarusettysArg 264 	264 Tyrchochilletythentysashtysasphenaspalaarohenenderonsphinasp 2014 	284 EysThrieuGhThrAspSerfleaspSerPhedhuthrGhArathrProAratgsSer (0) 	304 AshlenAspGluGluValAshValIlePraBraHisThrPraValArathaValMetAsh 423 	324 ThrileGinginLeumerMetilleteuasusera Lasera Septineroser chasniau (43) 	344 IllesertyrPheAsnAsnCysThrValAsnProLyschusertholestysAraValLyschold 111111111111111111111111111111111111	464 ASPIRCGLYTYTHOPROLYSCHOLYSPROALGLYSALOVALGLYSTRAGIGLYSYSVALGIG (883- HILLHHILLHHILLHHILLHHILLHHILLHHILLHHIL
5 13	40	a	o d	çoy O	,	AQ DP	io qu	 वि	λό, <b>;</b>	त्ते ठे :	qc	C C	dd Db	0 ¢	QY Db	Cy Db	S C	c pp
25.27 ACTICTICACAACTICCACAAATAAATCACAATGGTATGTAACAGCGACCGTGTGCTCAAA 804 ACGSCTALICTTCTCACACCTCCCCGCGTCCTCCCCCCCCCCCCCCCC	(3) 2587 AGAMOTOTOTAAGGAAGGACTOTAAGCACTGAAAAACTACGTTGATATTGAA 2646	TA 2647 GARITANATIANATANATANATANATANATANATANATANATA	HO Z202 CHOCKNAMA FELTINIA CHOCKNAMA AGGAA GOAAAA AGGAAAA GALAGAHG 2766 QY 864 ASPTHER AGAN INDIA GALAGAA GALAGAAAA GALAGAHGA GALAGAHG 2766	34) - 2767 (STANTERANTANBRABABAN - 2790)	September 14 st Application US/09364531   Patent No. US/0020165180A1   CENEDAL INPERMATION   Section 1	: III.E OF INVENTION: Dencess for identifying Anti-Cancer Therapeutic Agents Using Cance; III.E OF INVENTION: Gene Sets.; FILE PEFFERENTE: 682-90 77.	CURRENT APPLICATION UNMERS 05/02/554. CURRENT APPLICATION NUMBER: 05/60/233.133 CREDE PILLING DATE: 2000 09: 18 CREDE PILLING DATE: 2000 09: 18	PERCOR ADDITION DATE: 2000 09 40   PERCOR ADDITION DATE: 2000 09 40   PERCOR ADDITION NUMBER: 08/60/234,034   PERCOR FILING DATE: 2000 09 40   PERCOR FILING DATE:	1 PEPOR ANALIZATION NUMBER: 08/26/244,509 1 PEPOR APPLICATION NUMBER: 08/26/244,567	FIVOR FILLIN TALES 2890 99 22 NUMBER OF SED ID NOSE 1892 SOFTWARE: Patentin Aersion 4.0	7.550 TO NO. 143 - LENGT 483 - YEST DAA	: PEGANNSM: Homo Sapiens US 09 054 581 144		98.92% Install Hest 98.92% Gaps: 9 Gaps:		TO TABLETO THE MANAGES CONTINUADAD CONTINUADE OF CONTINUED CONTINUED CONTINUED TO THE CONTINUED	4.1. Asptantisted as the statement of th	z b. dw. etc. et egit woottbadt foaabaaacabaaaaan ea fiffatt 61 Cysgludysta-dystlePeoAspHisValArqGluArqAlaTrpLeuThrTrp 11111111111111111111111111111111111

```
13.1. P. LELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELlettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.78 IGGACCTITICCACCACACCCIGCAGAAIGAGTATGAACTATATAAAGAAGAATTTG 2237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1518 CITAAATCAGAAGAAGAATTATCCATTCAAAATTTTAGCAAACTTCTGAATGACAAC 1577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1758 AACITGACAAGAGAAATGATAAAACATTTAGAACGATGTGAACATCGAATCATGGAATCC 1817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1818 CITGGARGGATCTCAGAITCACCITIATITGATCITAACAATCAAAGGACGGAGAA 1877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2357 LICAAAA:CATIGIAACAGGAIACAAGGAICITGCTCATGCTGTTCAGGAGACA1TCAAA 2357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2418 AIGCAGAGACTSAAAACAAATAITITGCAGTAGGITCCACCAGGCCCCCAACCITGCA 2477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               464 tenasni.eutysalatheasphetyrtysvaliteGluserbettetysalaGludly 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                524 StyprothrAspHistonCouncilsProtectedAshtenenDreteusCluAshAshHis 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 544 ThralaAlaAspMe+TyrLov@orPreValArqSerProLysLysLysLysClySerThrThr 563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       544 Aspettal toMot Most Oys Sor Most Tyre (gilloftys) 1/3 SAsol (OAspett) gas 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              404 LentysSerGluGluGluArdLeuSerlleGlnAsnPheSerLysLeuLeuAsnAspAsn 423
                                                                                                                                                                                                                                                                                                                                                                                                    424 IlePheHisMet.SerLeuLeuAlaCysAlaLeuGluValValWalMet.AlaThrTyrSerArg 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    444 SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrpIleLeuAsnVal 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     444 AsoLeufhrArqGluMetileLysHisLeuGluArqCysGluHisArqIleMetGluSer 503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 564 ArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGlnThrGlnLys 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8:4 ArgleuAsuThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGluHisIleIle 623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6.44 TrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArqHisLeu 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         *84 AraValLeuIleLysGluGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               704 MetGlnArgleulysThrAsnilcLcuGlnTyrAlaSerThrArgProFroThrLeaSer 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                724 ProlleProHisIleProArqSerProTyrLysPheProSerSerProLeuArgIlePro 743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
```

```
2598 ACACCAACAAAATGACTCCAAGATCAAGAATCTTAGTATCAATTGGTGAATGATTCGGG 2557
                                                                                                                               2718 AGAAGTGCTGAAGGAAGCAACCTGCTAAACGACTGAAAAACTACGCTTGATATTGAA 2777
                                                                                                                                                                                                                                                                                                                                                        2778 GGATCAGATGAAGGAGATGGAAGTAAAGATGTGGGAGGAGAGTGCAAAATTTGAGGAGAAA 2837
2538 GGAGGGAACAFCTATATTTCACCCTGAAGAGTCCATATAAAATTTCAGAAGTCTGCCA 2597
                                                                                                                                                                                                                      804 ArgSerAlaGlaGlySerAsaProProtysProtecutysLysLcuArgPheAsplacta 823
                                                                                                                                                                                                                                                                                                                824 GlySerAspOluAlaAspOlySerLysHishcurt.colyGluSerLysHiseGhalmiys 643
                                          764 ThrProThrLysMetThrProArgSerArglleLauValSerIle6lyGluSerPheGly 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Maneval, Daniel C.
TITLE OF INVENTION: Recombinant Adenoviral Vector and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TWo Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/142,669
FILING DATE: 25-001-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: USZUGZ860,211
FILING DATE: 18 May 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 08/328,673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/233,669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Smith, Timothy S.
REGISTRATION NUMBER: 35,367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (415) 576 0200 (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Stequiy, Richard J. Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2898 GATACCTCAAACAAGGAAGAAA 2921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 26-APR-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-FEB:2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 864 AspThrSerAsnLysGluGluLys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 7, Application US/09860211
Patient No. US20020137212A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y IV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STEANDEDNESS: simple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IHM PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          THE REPORT OF A CONTRACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AFFLICANT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 4
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                6
                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
```

TOPOLOGY: linear

NAMEZKEV: CLUS

LACALIDIN: 189, 2925

LACHER INPORMATION: /product "KB"

/ROLD: "TELLIDEAR AND TAMOZ SUPPRESSOF"

SEQUENCE DESCRIPTION: SPQ ID NO. 7. MOLECULE TYPE: OTNA FEATURE:

Conservative. 2
Conservative. 0
Mismatches: 1
Indels: 5
Caps: 2 0 4447.50 94.75% 94.75% 98.70% 10 Scores
Percent Similarity: 5
fest Local Similarity: 5
govery March: 1 All offinite for Sections:

08 09 026 459A 49 (1 871) x 05-09 860-211-7 (1 2995)

	2.7	4.3A 43 (1.871) X US-03 850-Z11-7 (1.235)	
÷	-	Met ProbrotysThrProArglysThrAlaAlaAlaAlaAlaAlaAlaAlaAlaAlaAlaAlaAlaA	0
÷	4.4	ATTENDED TO THE FORM THE FORM TO THE FORM THE FO	85
5	7.1	ProAlaProProProProProProGluGlaAspProGluGlaAspSerGlyProGlu 40	
Ě	1.5.1	CONTRACTOR	58
65	<del>-</del>	AsptoratrolenValArqueuGluPheGluCluCluCluCluCroAspthelhrAlaleu 60	0
ŝ	4,4,7	GACCEGCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	18
5	£,1	CyselutysteutystlekroAspHisValArqGluArqAlaTrpLeuThrTrpGluLys 80	0
÷	41.9	TOTTAGAAATTAAAGATAGAGATGAGAGAGAGAGGTTGGTT	78
63	Ξ	ValserSerValAspdlyValbedClyGlyTyrIleGloLysLysLysGluLeuTrpCly 100	0.0
Ē	47.3	GTTICATCIGGGAGGAGGTATTGGGAGGTATATTCAAAAGAAAAG	
5	=======================================	12	20
<b>1</b>	4.13	APCTGTATCTTATTGCAGCAGTTGACTTAGATGAGATGTCGTTCACTTTACTGAGCTA 49	
S	121	GlubysAsulleGluIleSerValHisLysPhePheAsuLeuLysGluIleAspThr 1	40
ą.	4.43	GAGAAAAAATAGAAA GAGAAAAAAAAAAAAAAAAAAAA	æ
25	141	Ser ThritysValAspAsrAlaMet SerArqLeuLeuLysLysTyrAspValLeuPheAla 160	09
40	1,1	6, 1	1.8
7.5	1.5.1	Louithe SorthysLouid uArgitht Cystinical Letyrical britining of Ser Ser 1	980
Æ	6.13		7.8
<u>د</u>	<u>x</u>	ThesetThroluTeAsaSerAlaLeuValLeuLysValSerTcpTleThrPheLeuLeu 200	0.0
Ē	67.9		38
5	07		20
iş:	7.4%	GCTAANGGGAAGIALIACAAAIGGAAGATGATGGGTTTTTTTTTTTTTTTTTTTT	86
2.5	2.2.1	CysVallouAsplyrPholificuSerProProMetLouLealysGlaProTyrLys 240	40
q:	1,6,6	TGEGECTEGACTATITIATIAAAGECTCACCTCCCATGTTGCTCAAAGAACCATATAAA 85	
6	241	24	
4	85.9	A NA NACE OF THE A PROPOSITION OF THE STANDARD	18

243

74.4

30	913	GORCHSTATIONANA AND TRIBANATORIACIAN GARANA TATA TOTAL TOTAL TOTAL TATAL	x
oy	244	24.3	-
<b>q</b>	979	CATGATGTATTAGATGAGGTGAAAAATGTTTATTTCAAAAATTTTATAGTTTTTATG TOTE	ž
<i>5</i> ≘	244 1039	AddSerfized) yteuValThrSerAsnSt (LevitsuS) aValSt uAsnireuSerfiysArg (263 	~ 3
.ठ ते :	264 1099	Tyteluelial Peryttesigsasniysaspieuaspalaarqteurheleuasphiyasp 284 	- ±
cy op	284 1159	Lystbricudinthraspser HeaspserPhediuthrititititititititititi   HTTLLLTITITITITITITITITITITITITITITITITI	÷ = ±
yo du	304	ASILEUASPGLIGLUVALASDVALLIEPLOPLOHISTHIPLOVALANGTHIVALMETASD 324 	* %
QY Lbh	324 1279	Thr HedlinGintaruMetMetHelauAsbserAlaSerAspöltafrossepthasniau (4). [HELLITHTHELITHTHELLITHTHHELLITHTHHELLITHTHHELLITHTHHELLI ACIATOCAASAAITAAIGAIGAITTAAATICAASCAASFGAICAACTICAGAAAAFF5 1400	, <u>\$</u>
du Oy	344	HESELTYTPHEASHASHCYSTHTVALASHTOLYSCHUSCLUCICACH YSALAVALLYS - 554   HTHTLITHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTH	- ž
Cy Ob	364	ASPILEGLYTYFILEPheLySGluLySPheAlaLySAlaValGlyGluGlyFySValGlu 483 	* £
O.Y Db	384 1459	TICGLYSCTGIDALGTYTLYSLANGLYVATALGLATTYTYTALGVATMATGUSALMAT 403 	, H
Qy Ub	404	LeulysSerGluGludruarqLeuserTlegluaspPleSerLysTeulauasuaspasn 423 [HTTLLTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	~ ~
Qy Db	424	ITEPhellisMet SertevileualadysalateuGhivalValMetalathirtytSerara  443	~ ~ ~
Cy Db	444	SetThrSerGinAsulewAspSerGlyThrAspLeuSerPheprofrp11cteuAsuVal 463 [HTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHT	~ <del>\$</del>
Ċγ	464 1699	LeuAsnicoltysAlaPheAspPheTyttysValificdiuSerPheffesysAladiudity 483 	~ ±
qα	484	ASILENTEETET GOMETTE ELYSHISTEN (STUDIOST OF HOLD FOR THE FOR THE FORT THE FORT THE FORT OF THE FORT THE FORT THE FORT THE FORT OF THE FOR	* = =
du Ub	504 1819	LeuAlatrpicogerAspSerProteuPheAspLeufleigsClaSerigsAspArqGlu 524 [HILLHITTHELLEULINELLEULITHELLEUTHELLHITHELLHITHELLEULISCACGAGA 1828	78
Oy Ob	524 1879	CTyProthraspHistenGluSeraladysProtenAsntenProtenGlauGhashAnhis 543 	~ ±
Qy qu	544	ThrAlaAlaAspMetTyrLeuSerProValArgSerProJysLysGlysGlySerThrThr 563 FILLHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTHTH	, <u>x</u>
QY Db	564 1999	564 ArqYaiAsnSorthrAlaAsnAlaGiuthrGlnAlathrSorAlaPhoGlnJhrGlDiys 583 	~ ±

```
2059 CCATTGAAATCTACCTCTCTTTCACTGTTTTATAAAAAAGGGTATCGGCTAGCCTATCTCT 2118
                                                                                                                                                                                                                                                                                                                                                                                                                                         .
2113 OGESTAAAFAGETTELEAAGGGETFOTGTETGAGGAGGAGGAAFTAGAAGATTATGAGC 2178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PERFECTION OF THE PROPERTY OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2179 IGGASCOTITICCAGGACACCCIGCAGAATGAGTATGAACTCATGAGAGAGAGAGAGTTTG 2238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22 39 GACTAAATTATGATGTGTGTGTATGTATGTAAAGTGAAAGTGAAAGAAAGATAGTAAAA JAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2479 CCAATACCTCACATTCCTCGAAGCCCTTACAAGTTTCCTAGTTCACCCTTACGCATTCCT 2538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2719 AGAAGLOCTGAAGGAAGCAAGCCTFCCTAAACCACTGAAAAACTAGGCTTTGATATTGAA 2778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22779 GGALGAGALGAAGCAGAGGAAGTAAACATCTCCCAGGAGAGTCCAAATTTCAGCAGAAA 2838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          664 Photys:!olloVal!bvalaTyrFysAspl@uProHisA)aValGlnGluThPhctys 683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  *24 TrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArgAspArgHisLeu 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    641. ASPTATORETOWN TOUR OF THE PERIOD OF THE PERIOD OF SAME TO ASPTATORE SAME FOR THE PERIOD OF THE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  744 dlydlyAddlleTyrileSerProLedLysSerProTyrLysileSerGluGlyLeuPro 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       824 **!yserasp**!valadsp@ysertysHisLegProSiyGluSertysPheGlnGln;ys 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                M44 LeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 863
584 ProtocotysSorThrSertcuScricarPedTyrtysLysValTyrArgicuAlaTyrtau 603
                                                                                                                                                                                                                                                                                                                                                            504 ArdicuAshThricuCysCluArdicuSerGluHisProGluieuGluietle 623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              684 AraValLeuIleLysGluGluGluTyrAspSerIleIleValPheTyrAsnSerValPhe 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      724 ProlleProHislleProArgSerProTyrLysPheProSerSerProLeuArgllePro 743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24.4 thrProthitysMetThrProArgSerArg11eLeuValSer11eGlyGluSerPheGly 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     784 [hrserd]uLysPhcGlnLysllcAshGlnMetValCysAshSerAspArgValLeuLys R03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    804 ArqSerAlaGlySerAsnProProLysProLysLysLysLeuArgPhcAspIleGlu 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TILE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2839 3ATACHTHITHTHITH 1111 2822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                864 AspThrSerAsnLysGluGluLys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    this 469 522 50
Sequence 50. Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Paten: No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S 1 118888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
```

PROTEINS

NUMBER OF SEQUENCES: 51

```
81 ValSerSerVilAspGlyValLewGlyGlyTyrileGlaLysLysLysLysGluLeuTrpGly 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101 IleCysIlePhelleAlaAlaValAspLeuAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             127 GACCTGCCTCTCGTCAGGCTTGAGTTGAAGAAACAGAAGCTGATTTTACTGCATTA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3307 AICTGTATCTTATTGCAGGAGTIGACCTAGGIGATAIGICGTTCACTTITACTGAGCTA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 ClutysAsnileGlulleSerValHisLysPhePhoAsnieul.ysGlulleAspthr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaCluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7 ALGERTATION OF THE FINANCIA AND A STANDARD SECTION OF THE FINANCIA OF THE FI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21 ProAlaProProProProProProGluGluAspProGluGluGlaAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41 AspLeuProLeuValArgLeuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patentin Pelease #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-026-459A-49 (1-871) x US-09-469-522-50 (1-3554)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 22-Dec-1999
                                                       Arnold, White & Darkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           indels:
                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE DESCRIPTION: SEQ ID NO: 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ICATION NUMBER: 03,026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Caknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 3554 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
CORRESPONDENCE ADDRESS:
AUGRESSEE, Arrold, Whi
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W. REGISTRATION NUMBER: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1ELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7..2790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4437.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93.75#
93.64#
98.70#
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lincar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LASSIFICATION.
                                                                                                                                                                                                                             COUNTRY: USA
XIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                          CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-469-522-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οy
```

443	HethellisMetSerLeuLeuAlaCysAlaLeuGluValValMetAlaThrTyrSerArg	474	:5
1446	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	1.487	<del>.</del> 3
	Lay Tresped grand trail training to the forest National Section (Section 1)	404	3
403	1   0.3   1980   G   10.4   17   1981   19	584 7.2.1	55
383 1326		364	97
363 1266	HesertytPheAsnAshCysTurValAshProLysGluSerHoEmUynArqValLys HESERTHERHILLER CHILLERHILLIH HELLIH HELLIH HELLIH AltrotalihaacAACTGCACAGGAALGCAAAGAAAGAAAGGAAAGGGCAAG	1207	S 2
		1147	5 ±
323 1146		1087	5 3
303 1086	Lysthri with thraspertleasperpled uthichnary thrasprayed by ser Hillillillillillillillillillillillillill	1027	5 3
283 1026		46.7	5 3
263 966	< - <	244	5 43
906	 I V.	847	Ę
243		74.4	> >
846	GCACCAGALACCAAAACAACLAGAAAAATGALACAAGA	787	÷
~		74.4	5
243	Thr	241	3 3
240 726	CysValleeAspTyrPleTleLysLeuSerProProMetLeuLeuSysChuProTyrLys Tillitts (HTLLTELSTILL) HTLLTTHTHHHHHHHHHHHHHHHHHHH IGESPCHEGEAAAGAGGAAAGAGAAAAGAGAAAAAA	221	5 3
220 666	Alarysolychovancovan Metoluaspaspicovan Heserphesinicumetreu Hilliticilii (Hillitica) (Hillitica) (Hillitilii) (Hillitilii) ectaaneeesaanstatacaanseesaansa (Hillitilii)	201 607	£5
200 606	1) eSerThrolu: beAsnSerAlateuValLeuLysV 	181	S ±
180 546	Leupheser Lysteadiudroffur Cysciuleuf hefyrbauthr Glubroser Ser Ser 	161	à 3
150 485	Ser thr Lysvalaspasna Lamet Ser Argicolicolicystystyr aspvalicoupheala 	14]	35
426	CAGAAAAA 'ATAGAAAG AG GAGAAATGTTIAAGTTAGTAAAAAAATGATAGT	141)	Ξ

```
2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1447 ATTITICATATGICITITATIOGOGIGCOCHUTTGAGGITGIAALGGOAAAIAFAGAAAA 1506
                                                                                                                                                                                                                                                                                                                                                                                                                             1627 AACTTGACAAGAAATGATAAAACATTTAGAACGATGTGAACATCGAATCATGGAATCC 1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1807 ACTGCAGCAGATATGTATGTTTCTCCTGTAAGATGTCCAAAGAAAAAAAGGTTGAACTACG 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2344.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2407 GGAGGGAACATETATATTTEACCETTGAAGAGTETATAAAATTTEAGAAGTTTEECA 2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2467 ACACCAACAAAAIGACICCAAGAICAAGAAFTIIAGIALGAAIIGGIGAAIFAIIGGG 2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2527 ACTICIGNAMASTICCAGAAAATAAATCAGATGGTATGTAACAAGACGGCGGTGCTCAAA 2586.
                                                                                                           444 Ser Thr Ser Glussnia ad Asper Glythr Asptauser Phebrol (p. 1 et ausanvat 4) at the HILLI HIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   504 LeuAlaTrpLeuSerAspSerProLeuPheAspLeuTletysGlnSerLysAspArdClu 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 664 PheLystletleValThrAlaTyrLysAspleuProHisAlaValGlnGluThrPheLys 683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   744 ClySlyAsnileTyrileSerProtentysSerProtyrtysileSerGludlyLeuPro 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            764 ThrProThrLysMetThrProArqSerArq11eLeuValSer11e61y61uSerPhe61y 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        524 GlyProThrAspHisLeadluSerAlaCysProLeuAsnLeuFroLeuGlnAsnAsnHis 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      564 ArgValAsnSerThrAlaAsnAlaGluthrGlnAlathrSerAlatheClnthrGlnLys 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           604 ArgleuAsnThrLeuCysGluArgleuLeuSerGluHisProGluLeuGluHisHlelle 623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                624 TrpThrLeuPheGlnHisThrLeuGlnAshGluTyrGluLeuMetArqAspArqHisLeu 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             684 ArgValleufletysGluGluffuTyrAspSerTletTeValPheTyrAsnSerValHhe 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              704 MetGlnArqLeuLysThrAsulleLeuGlnTyrAlaSerThrArqProFroThrLeuSer 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        784 Thr Ser Glubys Phed Infys HeAsnGlumer Valeys As user Aspara Valleullys - 803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   464 LeuAsuLeuLysAlaPheAspPheTyrLysVallledluSerFhelleLysAladludly
                                                                                                                                                                                                                                                                                                                                                           484 AsnicuThrargGluMetlleLysHisLeuGluArgCysGluHisArglleMetGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 544 ThralaAlaAspMctlyrLcuScrProValArqScrProLysLysGlyScrThrTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                            <u>a</u>
                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                       _{\rm Q}
                                                                                                                                                                                                                                                                                                                                                                                                                      đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ^{\circ}_{\gamma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
```

```
220 CIGGCAGAAAIGACTICTACTCGAACAAGGAAAAAGTAAAAATGAAAIGAIAGAIG
                                                                                 824 01; SerAspGluAlaAspGl; SerL; oHisLeuFroGlyGluSerLysPheGlnGlnLys 843
                                                                                                                                                                     844 LenaladluMetThrSerThrArgThrArgMetGlnLysGlnLysMetAsnAspSerMet 863
804 ArgSerAlaGluGlySerAsuProProLySProLeuLycLysLeuArqPheAspIleGlu 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OPERATING SYSTEM: PC-DOS/MS-DOS
SOFIWARE: Patentin Release #1.0, Version #1 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER 104 00 (469, 522 FILING DATE: 22-Dec-1999 CLASSIFICATION: / University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCALTON: 7.,2691
SEQUENCE DESCRIPTION: SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/026.459
FILIND DATE: KUKNOWD:
ATTO-PREY ANDERT INFERMATION:
NAME: HIBDER: DAVIG W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hu, Shi-Xue
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 77210:4433
COMPUTER READABLE FORM:
MEDIUM IYPE: Floppy disk
                                                                                                                                                                                                                                                           864 AspThrSerAsnLysGluGluLys 871
                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20, Application US/09469522
Patriot No. US/20020151461Al
CENEMAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGIH: 3455 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROFEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 512/418-300
TELEPRA: 512/474-7577
INF HMAIT N FOR SEQ 1D NO 28:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRICE APPLICATION DAFA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCIES 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "RRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPILICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4259.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93.628
93.628
94.748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIAIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ailqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                   US 09-469 522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 09-469-522-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13 CM . TO 25
                                                                                                                                                                                                                                                                                                                                          RESULT 6
```

```
970 AGAACACGAGGAAAAAGTAACCTIGAIGAAGAGGIGAATGTAATTCCTGCACACACTGCA 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             298 ArgThrProArgLysSerAsni.euAspCluCluValAsnVall1eProProHisthrtro 317 | HIIIIIIIIIIIIIIIIIIIIIII
                                                                                                                                                                                                                                                                                                                                                                         95 LystysCluLecTrpCly?!eCyst!ePheilcAlaAlaValAspLeuAspGluMetSer 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          190 AAAAAGGAACTGTGGGAAATCTGTATCTTTATTGCAGCAGTTGACCTAGATGTCG 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  115 PheThreherhrGlut.euGhnLysAsnileGluileSerValHistysPhePheAsni.cn 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     135 LouLysGlulleAspThrSerThrLysValAspAsnAlaMetSerArgLeuLeuLgcLys 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        175 ThrGlnProSerSerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSer 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         195 TrpIleThrPhoLeuLeuAlaLysGlyGluValLeuGluMetGluAspAspLeuValile 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                490 TGGATCACATTTTTTATTAGCTAAAGGGGAAGTATTACAAATGGAAGATGATCTGGTGATT 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          610 PEGAAAGAAGGAFATAAAAGAGGTGTTATAGGGAFFAAFGGTTGAGGTGAAAGAAGAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          670 CGAGGIIGAGAAGAGGGAGTGCAGGGATAGCAAAACAAGTAGAAAATCATAGAAGAATTATT 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   244 ------ Hunther Carle Control of the Control of Cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                790 AATTTTATACCTTTTATGAATTCTCTTGGACTTGTACATCTAATGGACTTGTAGGGTT 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     850 GAAAATGTTTGTAAAGGATAGGAAGAATTTTATGTTAAAAATAAAGATGTAGATGCAAGA 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        278 LeathaladapHisAspLysThrLeadInThrAspSarileAspSarPheGluthrolm 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    318 ValArgThrValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnScrAlaScrAsp 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     730 GAAGTTFFFFTAAAGAAFAFGAATGTAAIAIAGAFGAGGGGAAAAAIGTTAITLGAAA 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  258 GluAsnLeuSerLysArgTyrGluGluileTyrLeuLysAsnLysAcpLeuAspAlaAra 277
                                                                                             55 ProAspPhcThralaLcuCysGlnLysLcuLysTleProAspHisValArgCluArgAla 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   · ClySer
US-09-026-459A-49 (1-871) x US 09 469-522 28 (1-3455)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             235 LeulysClabroTyriysThr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , OY
                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ĉ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
```

1089	357 1149	377 1209	397 1269	417	<b>4</b> 37 1389	457 1449	477 1509	4 <i>97</i> 1569	517 1629	537 1689	557	577 1809	597 1869	617 1929	637 1989	657 2049	677 2109	697
0 GITAGAN TGHARAAN ACIARGAN SAN SAN SAN GALGATITIAAN FRAN TAAGAAN	# GloproserctuasmissuleesertyrPheasnasmicysthrValasmProdysGraser 	B. ID-LeubysArqVallysAspileGlyTyrflePhebysGlubysPheAlabysAlaVal   HTH FELLETT FLETT FLETT FLETT HTH FLETT F   O. ALACTSAAAAGAGGAAAGAGAAAGAGAAGAFGET HAAAGAGAAAATT FGGTAAAAGCTGTG	B GLyGLOGLY/YSVALGLOLLOGLYSSFORMARGLYFLYSLOOLLYVALARGLOUTYFTYF 	8 ATQVALMOTGLUSOTMOTLOLUSSOTGLUGLIAFICLORICASOTHOGLIASIDPLOSOT HTTLL HTT	B. LysteviteviAsinAspAsinTePheH1SMet SerteviteviAladysAladeviGhVaTVaT 	8 Met Alaftaty, Ser ArgSer Thr Ser Glinds at Leurasp Ser GlyThr Asplace Bre Pre- 1 to 11 11 11 11 11 11 11 11 11 11 11 11 11	B Profip Hetogramshyallægasnloglysalapheaspphetyrlysvallfegluser 	B. Phol het ys Alasthach gas and earthrachthae Thebys Bis Leaghain edys solu 	B HISAFGILEMETGLUSELLEUALATEPLEUSERASPSETPICEUPHEASPLEUTTELETTELETTELETTELETTELETTELETTELET	B Glussett;;;saspargGlustyptotbraspHisteuGluseralacysprotouassiteu   FEETHELITELITELITELITELITELITELITELITELITELIT	8. ProgradiaAsiaAsiaHisTha AlaAlaAspWet TyrLeuSerProValArdSerProLys 	8 LystysotyserthithrangValasoserthralaasnaladiuthrollaalathrser 	* A Latherd in thrich blyster of collysser the Ser Leouser Leousely priystys by a little of the colline of the	8 TyrarqizedaTyrizedaYstzedaSaThrizedCysGluArqizedZedSerGluHisPro 	B GluteuGluffistle-HerrpThrteuPheGluffisThrLeuGluAsnGluffyrGluLeu 	B. Med Ar gaspar ghis Legaspolini temet met CysSer met tyroly i i eccystysval 	B. Lysasutteaspleetystbellystleftevalthratatyrlysaspleebroffisala 	8 Valohadi The PhetysArqValle-uffetySGludhushaTyrAspSerffetfelleVal
10.49	11090	458 1150	1210	1270	4.18	4.48	458 1450	478	498	5.18	16.90	1758	1,78	5.48	618	6.48 1990	0507	6.78
ã	等達	5 3	S ±	5 3	\$ 3	5 3	5 3	5 3	5 3	5 3	5 3	5 3	5 3	5 3	55 G	5 3	5 3	3

```
2290 TCM-SCCTTAGGGATTCCTGGAGGAACAT-CHAITHCHAITHCHAITHTHT 2499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2350 ATTICAGAAGGICIGICAACACAAAAAGACICCAAGATICAAGAAICTAAGAATA 2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2470 AGGGACCTGTGCTCAAAAGAAGTGCTGAAAAGAAACCTCCTAAAAAAA 2529
2110 GITCAGGAGACATICAAACGIGIIIIGAICAAAGAAGAAGAAGIAIGAIICTAIIATAGIA 2169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2530 CTACCCTITGATATGAAGGALCAGAAGGAAGGAAGTAGAAGTAAAGATCTCCCAGGAGA 2589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        798 SerAspArgValLeuLysArgSerAlaChuGlySerAsnProProLysProLeuLysLys B17
                                                                                                                                                                                                                                                                                                                                                                                                                                     738 SerProteuArglleProGlyGlyAsnileTyrlleSerProteuLysSerProtyrLys 757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 758 HeserGluGlyLeuProThrProThrLysMetThrProArgSerArgHeleuValSer 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   818 LeuArgPheAspileGluGlySerAspGluAlaAspClySerLysHisLeufroClyGlu 837
                                                                                   698 PhetyrAsnSerValPheMetGlnArqLeutysThrAsn11elauchntyrAlaSerThr 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          838 SerLysPheGlnGlnLysLeuAlaGluMetThrSerThrArqThrArqMetGlnLysGln 857
                                                                                                                                 2170 TTCLELLITTELLITTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELLETTELlettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettellettell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2650 AAAATGAATGATAGCATGGATACCTCAAA-YAAGGAAGAAA 2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          858 LysMetAsnAspSerMetAspThrSerAsuLysGluGluLys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
FILING DATE: 22-Dec-1999
CLASSIFICATION: + OBKHOWD +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REPERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AIFORNEY/AGENT ENFORMATION:
NAME: Hibler, David W.
REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : Sequence 40, Application US/09469522
; Patent No. US20020151461A1
: GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              < Unknown -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIREEF: P.O. BOX 4433
CITY: Bouston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
Z1P: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-469-522-40
                                                                                        Š
                                                                                                                                                                  9
                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

		TELECTOMMUNICATION TELEPHONE:	N INFORMATION 512/418-3000	••		
Z	×	TELEFAX: 51 MATION FOR SEQ T SEQUENCE CHARACT	۲			
		LENGTH: 8461 base por TYPE: nucleic acid STRANDEDNESS: single	l base pairs it acid S. single			
		FEATURE: NAME/KEY: LACATION:	inear CDS 7 0667			
ý.		SEQUENCE DESCRIP	0 T	NO+ 40+		
Listan red.		Scores:		7† h · 34		
S. Theorem	7,	ilarity:	256.00 0.528	hes: 840 servative: 0		
est L 2017	orio Matr	ımılarıty:	20	DC:		
Ē vs	5	459A-49 (1-871)	-60-80 ×	d		
> .a	, • F	ProProLysThr 	ProArati 	lahlaThrhlahlahlahlai 	AlaAlaGluPro HIIIIIIIIII GeegegAaee	20 66
	7.1	AlaProProPro	ProPre	luGluAspProGluGlnAsp 	SerGlyProGl	0
ā	Ľ.,	CONGRESS OF THE CONTROL OF THE CONTR	การเการ์การการการการการการการการการการการการการก	AGGAGGAGGAGGAGGAGGAAG	Vanagoodgava	126
;a .a	÷ 3	AsplenProleuVal.	ArgleuGluPheG 	luGluThrGluGluProAsp 	PheThralateu 	60 186
> <u>a</u>	<u> </u>	Syscholysleulys	IleProAspBisVa 	SGINLySLEULYSTIEProAspilsValAraGluAraAlaTrpLeuThrTrj 	ThrTrpGluLys	80 234
2.	2,		GLYVal Leurely (F	lyTyrTleGlnLysLysLys	:Lup:	100
يتم	4.0		1	1		234
;s <u>4</u>		HefystlePhelleAta	Ala	cuaspGluMetSerPheThr 	Pherbreluteu 	120
» <u>а</u>	121	GluLysAsnileGlu Filttilillill MGAAAACATAGAA	Ser 	ValhisLysPhePheasnLeuLus 	LeuLeuLysGlulleAspThr 	33
> 4	<u>च</u> जु	/alAs        TIGA	Ala	LysLys 	ValLeuPheAla 	160 393 `
:= _4	7 7	Lyst.c 	Gluargibreysd 	Tyrleuth:              FATTTGAC	Ser	180 453
> <u>a</u>	# £	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	eAsnSerAlaLeuValLeuLys) 	ValSerIrg 		200
ش م	Z 1	AlatysciyoluVal 	LeuGlaMetGlaAe 	spaspleuVallleSerPhed 	GlnteuMetteu 	220 573
1>4 - 2	14 F	YsValleuAsplyr 	PhethelysLeaSt	1 - E	Glubiofyrtys 	240

ò	241	Thr	243
q'C	634		£.
Οy	243		243
D,	694	GPACESATANS AAAAPAAN TAGAAAATISATACAAGAATTATTGAAGTTCTCTGTAAAGAA	753
Qγ	243		243
đ	754	CATGAATGTAATATAGALGAGGTGAAAAATGTTLATTCAAAAALLITATACCTTLIATG	<u> </u>
ã	244	AsoSerLesdlyLesValThrSerAsoSlyLesProGlaValGlaAsoLeserLySArd	263
QQ	814	ANTICCTITICATOR TO THE TOTAL TOT	3,7 7,0
£ 5	264	TyrGluGlarlicTyrLordlysAsnLysAsplodAspAlaArgLoubbolcuAspHisAsp [1] [ [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [	283
G :	* · · · · · · · · · · · · · · · · · · ·	TWISHINGTON THE THE HARMAN AND THE TRANSPORTED WAS A PROPERTY OF THE PROPERTY	
qq Dp	934	AAAACTCTTCAGACTGTTCTATAGACAGTTTGAAACAGAGAAAAAGTATTTTTTTT	663
Qy	304	AsnLeuAspGluGluValAsnVallleProProHisThrProValArgThrValMetAsn	323
фД	994	AACCIIIIGAIGAAGAGGIGAATGIAA ITCCTCCACACACTCCAGTTAGGACTGTA IGAAC	1053
Qy Dp	324 1	324 ThrileGinGinLeumetMetileLeuAsnSerAlaSerAspGinProSerGluAsnLeu 343 	343 1113
0,7	344	HeSerTyrtheAshAshCysthrValAshTretysGluSerHeileutysArqValLys	36.3
qa	1114	HITTELLE HELLE HEL	1:73
	हा । जिल्ला	ASPI1eQL/TYEILOPPELYSSLuL/YSPNEAlat/SSAlaValGl/COLSGL/CYVValGl/L	383
<b>Q</b>	1174	GATATAGGATAGATGTTTTAAAGGAAATTTTGGTAAAGGTGTGGGACAGGGTTGTGTGGAAA	1233
i d	384 1234		403
Qy	404		423
qq	1294	CTI AATICAGAAGAAGAAGATI ATCATTCAAATTTTTAGGAAAGTTCTGAATGACAAC	1353
ठे व	1354	IlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValWetAlaThrTyrSerArd	443
3 8	444	Serfbr Ser Clin Ashieu Asp Ser Clin Ashieu Canada C	463
d D	1414		1473
40	464	I.euAsni.euLysAlaPheAspPheTyriysValileGluSerPheTleLysAlaGluGly	483
	† X	COLDANI TANAMAGO, DELGA ELLEMENANDEGA ELGANIZATE LA TRANAGO, NOMAGO, N	
à a	1534	ASSISTANT AND STUME TELY PRINCE FOR ACCOUNT AND STUME FOR THE ACCT CACAGAGAATCA CATAGAATCA CACAGAATCA CACAGAATCA CACAGAATCA CACAATCA T	1593
ΟŸ	504	LeuAlaTrpi.euSerAspSerProi.euPbeAspi.eu HetysChSeriysAspArqCta	Š
90	1594	CITGCATGGCTCTCAGATTCACCITATITGATCTTALIAAAAATCAAAGGACGAGAA	1653
å å	524	GIPPTGThrAspHistedCluSerAladysPtotradAnteuPtotradInashAsnHis [1] [1] [1] [1] [1] [1] [1] [1] [1] [1]	543
a á	544	OGGCGAGCGACGCTTGAGTGTGCTTGTGCTTTTAGTGTTGCTGTGCGGAGATAGTGGCAGCAACGAGCAAAAAAAA	563
·			

Tue Jan 21 10:04:39 2003

```
724 Pro Hebroffis Hebroargset Profyrtys Phebrosers er Profeuarg Hebro 743
HILLEH HELLEH HELLEH HELLEH HELLEH HELLEH HELLEH HELLEH HELLEH HELLE
2254 PYAALAG GASALLEGAS AGGS CHASAAG HEGTAGT GAS GASTEGET 2313
17.14 APPOCADA AND A PROPERTY OF THE PROPERTY OF A POCADA AND A PARTY AND A PARTY OF THE PROPERTY OF THE PROPE
                                                                                                                                                                                                                                                                                                                          1994 TEGANGCHITICSABGACACHOGAGAATGAGTAGAAGTICATGAGAGAGAGACHTIG 2013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2134 PORGETTER GRANDARGA GARGA GALCEA L'A RECENTARA GONTETT (1917)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2374 N.W.CARCAAAAAIGACEGAAAAICAAAAATCITAAGIAATAIGGGGAATCAITGGGG 2433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29.14 CTODORAMAGACHOT TOTAL TOTAL TOTAL TOTAL TOTAL AND TOTAL ACTORAMA A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2194 ATG AGAGACIGAAAGAATALIIIGGAGIALGOOGOOGOOGOOGIAGITGTCA 2253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24.54. ACTIVIDADAGII OPAGAAAIAAAIGAGAIGGIAIGIAACAGGAGGGIGGGGAAA 2493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2554 BIATCAGATGAABIAGATGGAAGTAAACATCTCCCAGAGAGTCCAAATTTCAGCAGAAA 2613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                644 AsptiliteMetMetPysOciMetTyTClyTteCystySVallySAsiileAsptanlys 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           664 PhotystletteValThrAlafytLysAsplenProHisAlaValGlnGluThrPheLys 683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        824 ClysterAspClaAlaAspClyStrtysHisLeatroClyCluSertysPheOlnClnfys 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            604 ArdicuAshibricuCysGluArdicuIcuSerGluHisProGluLcuGluHisFle11e 623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              624 TrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArqHisLeu 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     684 ArqValLeufleLysGluGluGluTyrAspSerflefleValPheTyrAsnSerValPhe 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               704 MetGluArqleuLysThrAsulleLeuGluTyrAlaSerThrArgProProThrLeuSer 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            744 GlyGlyAsmileTyrileSerPioLeuLysSerProTyrLysileSerGluGlyLeuPro 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      764 ThrittothitigsMetThrProArgSerArgITeLcuVatSerTTeGTyGTuSerPhcGTy 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   804 ArdSerAlaGluGlySerAsnProProLysProLeufysfysferfenArqPheAspIleGlu 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                844 LeuAladluMetThrSerThrArgThrArgMetGlnLySGlnLySMetAshAspSerMet. 863
                                                                                                                                                                                                                                       564 ArqValAsuSerThrAlaAsuAlaGluThrGlnAlaThrSerAlaPheclnThrGlnLys 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          584 ProteutysSeribrSertenSerteuPhetyrtystysValTyrArgteuAlaTyrteu 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2674 GALAGOLOAAAGAAGAAGAAAA 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 > Sequence 46, Application US/S9469522
> Fatent No. USZ9020151461Al
> OBNERAL INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  864 AspThrSerAsnLysGluGluLys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xu, Hond-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PESULI B
DS 09 469 522 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
```

```
61 CysGlntysLeutys11eProAspHisValArgGluArgAlatrpheuthr1rpGlutys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MetProProLysThtProArgLysThtAlaAlaThtAlaAlaAlaAlaAlaAlaAlaCluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21 ProAlaProProProProProProGluGluAspProGluGluAspSerGlyProGlu 40
                                 TITLE OF INVENTION: MODIFIED RETINGULASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-026-459A-49 (1-871) x US-09-469 522 46 (1-4477)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/469,522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <Unknown.
                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: UIXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 7..2613
SEQUENCE DESCRIPTION: SEQ ID No. 46:
                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 41,071
Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FELECOMMUNICATION INFORMATION:
FELEPHONE: 512/418-3000
                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 3377 base pairs
                                                        PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                 FILLING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Hibler, David W.
                                                                                                                            STREET: P.O. BOx 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
                                                                         NUMBER OF SECUENCES: 51
                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4166.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92.72%
92.16%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     92.668
                                                                                                                                                                                                Z1P: 77210-4433
                                                                                                                                         CITY: Houston
                                                                                                                                                                                 USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
Query Match:
                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-469:522-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

	-	-	
a	5.07	36	
> <u>a</u>	121	14	
ئيہ جج	141	16	
ش خ		S 13	
<u>ت</u>	181	18	
:- a	1.8.1 F.0.3	20	
> <u>.</u> 2	507	22	
ہ ہ	424 685	23	,
:a	¥ 4 5	25	
35 23	259	27	
> <u>=</u>	279	PhoLeuaspHisaspLysThrLeuGlnThraspSerfleaspSerPheGluThrGlnArg 29	
::	249 895	The Probadiys Serashicuas poling luvalas nyalile Proprohis The Proval 31	
> <u>a</u>	414	AryThrvalMetAsnThrIleGlnGlnLeuMetMet.IleLeuAsnSerAlaSerAspGln 33 	
.s <u>.</u>	3 H	ProsergionsmireulleserTyrPhensmasmcysThrValAsmProLysGiuserlie 35 	
شہ ہ:	25. 25.01	cultysar (Vallysaspiledlytyr)  cphclyscialyspheafalysalava(Cly 378	
54 A3	479	<pre>electyccvalstarlectyserclnarqTyrLysLeuGtyvalArqLeuTyrTyrarg 398                                     </pre>	
> a	399	41	
:- <u>a</u>	419	43 13	

1855 TTAGAACATAFCATCTGGAGCCTFTTFCCAGCAGCCTGCAGAAFGAGTAFGAACTCATG 1914 2275 TORGANSSTEESCANTACCANTACTANAAAISACIOGAAGAICAAGAATOTAGAATATACAATT 2334 1375 IGGATTOTGAATGTGOTTAAATTTAAAAGOOTTTGAITITTACAAAGTGATGGAAAGITIT 1434 638 2095 TATAACTCGGTOTTTATGCAGAGTGAAAACAAAIAITTTGCAGIAIGCTTCCACCAGG 2154 699 TyrAsnSerValPheMetClnArgLeutysTht AsntheheuGhrfytAluSer thrArg 718 499 ArgileMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysdln 518 · 599 ArgleuAlaTyrLeuArgleuAsnThrLeuCysGluArgleuSeuGeuGluBisProGlu 618 639 ArgAspArgHisLeuAspGinIleMetMetCysScrMetTyrClyIleCysLysVallys 658 679 GlnGluThrPheLysArqValLeulleLysGluGluGluTyrAspSerllelleValPhe 698 439 AlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhePro 458 479 llcLysAlaGluGlyAsnLeuThrArgCluMetileLysHisLouGluArgCysGluHis 458 759 SerGluGlyLeuProThrProThrLysMetThrProArgSerArglleLeuValSerlle 778 719 Promoth reasonment before it of the first part from the state of the first first form of the first force and consider the first force and consider form first first force and consider form first force and consider for first force for first fir 559 LysGlySerThrThrArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAla 579 PheClnThrClnLysProLouLysSerThrSerLeuSerLeuPheTyrLysLysVallyn 1735 TECCAGACCCAGAGCCAFEGAAALCIACCTCTTTCACTGTTTTATAAAAAGTGTAT 619 LeuGluffistleileTrpThrLeuPheGlnffisThrLeuGlnAsnGluTyrGluLeuMet , o<sub>y</sub> q 90 qq qq 9 g 금 δ qq ã ò QQ q qu a ö δ Š οÿ á ó 5 Çζ δ õ qu õ ŝ qq ô

799 AspArqVallesLysArqSerAlaGluSlySerAsnFreFrsLysFrsLeuLysLysLysLou 818

```
Z 193 - CAPOSTOTO PARARGARGIO CEGARGGARGCACO POCTARACCACTORADARAGIA 2454
                                                                                                                                                                                             2455 CONTITUENTE TO TOTAL TO THE PERMITTE STATE OF THE ST
                                                                                                                                                                                                                                                                                                                                                                                                                              25.15 AAATTIGAGGAGAGIGGGGGAAAATGACTTGTACTIGGAACGGAATGCAAAAGGAGAAA 2574
                                                                                                                                                                                                                                                                                                                            839 LysPheClnClnLysLeuAlaCluMetThrSerThrArqFhrArqMetGlnLysClnLys 858
                                                                                                                                    819 ArgPheAspileGluGlySerAspGluAlaAspGlySerLysHisLeuProGlyGluSer 838
Zhou, Yonii
IIIII: OF INVENTION: MOLETID RETINOBLASIOMA TOMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             859 Mot AshAspSor Mot AspThr Sor AshLysG1uG1u1 ys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: ACHOLD, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: 05/95/469,522
FILLING DATE: 22-Dec 1999
CLASSIFICATION: -Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCEZOCYKEI NUMBER: UTXC:505
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   congth:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
CAMPULER: HWEPC COMPATIBLE
OPERATING SYSTEM: PC-DUS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10°A1FON: 7..2628
SEQUENCE DESCRIPTION: SEQ ID NO: 80:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 09,026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W.
REGISTRALION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Xu, Hong Ji
Hu, Shi Xue
Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 30, Application US/09469522
Fatent No. US/20020151461A1
JENERAL INFORMALTON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PECLENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGIN: 4392 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: 512/418-5000
TELEFAX: 512/474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: * UDKHOWD > ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: P.O. BOX 4411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SECTION NOT 30: SECUENCE CHARACLERISTICS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nurleic arid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 77210 4433
MPUTER READARLE PORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4149.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93.47%
93.47%
92.29%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ToPoLoGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SECHENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAMEZKEY: CDS
TOCATION: 7...2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CILY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alliquinent Secres:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 09 469 522 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    119 469 522 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seerry March:
                                                                                                                                                                                                                                                                                                                                                                                                                              Ė
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
```

```
76 LeuthripglulysValSerSerValAspClyValLeuGlyClytyrHochutysLys 95 [HILLHILLHILLHILLHILLHILLHILLHILL] 70 ITAACIIGGGGGAAAGIITCATCIGGGAGGAIIATGGGAGGTIATATCAAAAAAA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HTHTHTHTHTHTB BEGINNER OF THE BOOK OF THE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             736 TITATAGCETTIAIGAATTCECTTGGACTIGITAAYAL-TAALGAGATTC 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      279 PheLeuAspHisAspLysThrLeuGlnThrAspSerIleAspSerPheGluThrGlnArg 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96 LysGluLeuTrpGlyIleCysIlePheIleAlaAlaValAspLeuAspwluMetSerPhe 11%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116 ThrPheThrGluLeuGlnLysAsnIleGlulleSerValHisLysPhePheAsnLeuLeu | 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        136 LysClulleAspThrSerThrLysValAspAshAlaMetSerArgLeuLeuLysLysTyr 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           176 GlnProSerSerSerIleSerThrGluIleAshSerAlaLeuValLeuLysVulSerIrp 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196 HeThrPheLouLeuAlaLysGlyGluValLeuGlnMetGluAspAspLeuValLleSer 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  430 ATCACATTITIATTAGCIAAAGGGGAAGIAITACAAATGGAAGAIGATCTGGTGATTTCA 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  216 PheClnLeuMetLeuCysValLeuAspTyrPhelleLysLeuSerProFroHrometLeuLeu 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            610 GGTCAGAACAGGAGIGCALGGAIAGAIAACAAAACAAIAAAAAAIGAIAAAAAIIIAITGAA 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   670 GPTGTGTGTAAGAAGAFGATGTAALALAGAFGAGGTGAAAAATGTTALLALLCAAAAAT 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   790 AATCTTTCTAAACGATACGAASAAALITALCIIAAAAJAAAAGATCIAGGAAGATTA 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             850 TITITGGAICAIGAFAAAACTCITCAGACTGAILCIAFAGACAGFITLGAAACACAGAGA 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             299 ThrProArgLysSerAsnLeuAspGluGluValAsnValIleProProHisThrProVal 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        319 ArgThrValMetAsnThrIleGinGinLeuMetMetileLeuAsnSerAlaSerAspGin 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            339 ProserGluAsnLeulleserTyrPheAsnAsnCysThrValAsnFroLysGluSerIle 458
                                                                                                                                      56 AspPheThrAlaLeuCysGlnLysLeuLysIleProAspHisValArqGluArqAlaTrp 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-026-459A-49 (1-871) x US-09-469-522 40 (1-3492)
                                                                                                                                                                                                             .
QY
                                                                                   ŝ
                                                                                                                                                       CP
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                      ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ΟY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \Gamma_{\rm P}
```

```
| 579 | PheThethathethathethathethetheuserfleuserleuserf. 598 | 177 | 598 | 177 | 598 | 177 | 598 | 177 | 598 | 177 | 178 | 177 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 178 | 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6.39 ATGASTATUS CHANDEL COM, MCCESSONALETE ETTE ETSELENGES (S.S.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1990 TGGATTOTGAATGTGCTTAATTTAAAAGCCTTTGATTTTTTACAAAGTGATCGAAAGTTTTT 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12.1. GIAATGGAATGCATGGTTAAATGAGAAGAAGGATTATFCATTCAAAATTTTAGGAAA 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1810 03AAICAIGGAAICCCIIGCAIGGCICICAGAIICACCIIIAIIIGAICIIAIIAACAA 1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-50 AAAGGITGAACIACGCGIGIAAATICTACTGCAAAIGCAGAGACACAAGAAAACICAGGC 1749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1998 AATATAGAGETTAAATTGAAAATGATTAAGAGGATAGAAGGATGTEEGTEGTEGTE 2049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     *59 LeutysArqValLysAsFileClyTyrIlePheLysGluLysPheAlaLysAlaValGly 378
                                                                                                                                                                                                                                                                                                                                                     379 Gincly/ysValGluIleGlySerGinArgTyrLysLeuGlyValArgLeuTyrTyrArg 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       334 ValMetSluSerMetLeuLysSerGluGluGluArgleuSerlleGlnAsnPheSerl.ys 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          459 TrplieLeuAsnValLeuAshLeutysAlaPheAspPheTyrLysVallleGluSerPhe 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                *5. AsniteAspteut,sFhetystleideVallhrAlaTyttysAspteuFtoffisAlaVal 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41) LeuLenAsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGluValValMet 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        439 AlaThrTyrSerArdSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhePro 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                479 HeLysAlaGluGlyAsnLeuThrArqGluMetIleLysHisLeuGluArqCysGluHis 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  459 ArglleMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLysGln 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 719 AmilysAspArgGluGlyProThrAspHisLouGluSerAlaCySProLouAshtcourto 538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   539 LeuGlnAshAshAshRiSThrAlaAlaAspMetTyrLeuSerProValArqSerProLysLys 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900 CyselyserThrThrArqValAsnSerThrAlaAsnAlaGluThrGluAlaThrSerAla 578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  *1º lengloHisTleTleTrpThrLeuPhedloHisThrLeuGluAsuGluTyrGluLeuMet. 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     674 almaluThrPheLysAraValleuIletysGlugluGluTyrAspSerIleIleValPhe 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
```

```
2290 TCAGAAGGTGTGCCAACAACAAAAATGAGTGGAAGATGAAGAATGTTAGTALGAAFF 2349
                                                                                                                                                                                                                                                                                                   2170 GGGGGTANGTTGTGARTARGTTGAGATTGGTGGAAGGGGTTAGAAGTTTGGTAGTTGGA
                                                                                                                   P19 ArqPhcAspT1001001yScrAspOluAlaAspC1yScrUysHistouTcOlyGluScc 838
779 GlyGluSerPhoGlyThrSerGluLySPhoGlcLysIleAsnGlcMctValCysAsnSer 798
                                                                                                                                                                                                                                                                                                                                                                    799 AspArgValLeuLysArgSerAlaGluGlySerAsnProProLysProLeuLysLysLeu 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    839 LysPheGlnGlnLysLeuAlaGluMetThrSerThrArgThrArgMetGlnLysGlnLys 858
                                                                                         739 ProLeuArgiieProGlyGlyAsmileTyrileSerProLeuLysSerProTyrLysile 758
                                                                                                                                                                                  759 SerGluGlyLeuProThrProThrLysMetThrProArgSerArgTleLcuValSerTle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TILLE OF INVENTION: MODIFIED RETINOBLASIOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        859 MetAsnAspSerMetAspThrSerAsnLysGluGluLys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US, US, 469, 522
FILING DATE: 22-Dec-1999
CLASSIFICATION: CONKNOWNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PEGISTPATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 42, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM LYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 512/418-3000
TELEPHONE: 512/474-7577
INFORMATION FOR SEQ. ID NO: 42:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 3347 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SECUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                감
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90
```

		STRANDEDNES TOPOLOGY: 1 FEATURE: MANEZZEV:	ESS I			
5 2	463	MANICATION: BOCALLON: SEQUENCE DESCH 1522-42	7 2584 7 2584 0 PT FON: SEQ 4D	NO: 42:		
distribution of the state of th	digment red. No.: rote: errent Si errent Si ouery Mate	Scores: : :imilarity: d Similarity: ch:	0 8452.00 86.41% 86.41% 90.12% 10	Lenath: Matches: Conservative: Mismatches: Inden's: Gaps:	7347 801 0 125 3	
80 S	026	459A 49 (1 H	71) x US · 09-469	522 42 (1-3347)		
ir ą	1 7		Met ProProtys thr ProArguys thrAtaAlathrAtaAtaAlath 	aAlaThrAlaAlaAl HTTTTTTTTTTTTTTT CGGCCACGGCGG	daAlaAlaAlaGluPro HTHEHHHHHHHHH CIGGGGGGGAACCC	20
5- 2	1.2	ProAbaProProF 1111111111 CCGCCACCCCCC	ProProProProProG -1411111111111 SCGCCCC1C1G	uGluAspProGluGl 	_ ã — ğ	40 126
is a	4.1	AspteuProLeu/ FILLITITITI GACTICCTCTC	ValArgLeußlupheg) FILLITETTTT GICAGGCITGAGITIGA	uGluIhrGluGluPr 	AsplantroLeuValArquandhrPheGluGluThrGluGluProAspPheThrAlaLeu FILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLITTILLI GAYYLOXCICLOXICAGGGLUAGGILGAAGAAACAAGAAGAACGGALLIACFGCATTA	60 186
ي ج	18/	Cysclubysteuf 	Cyschilystautys HebroAsphisVe 	alArgGinArgAlaTrpLeuibrfrp 	Tpleuthr FrpGluLys 	80 246
ir a	H]	ValSerSerVal/ [HITHTIT] GHICAICIGIG	Aspolyvallendlyd Ellffffffffff Galggagiainggadd	Y FYT I LEG Luf (YSL); 	/SEySGluLeuTrpGly 	
्र १५ - <u>व</u>	101	Herysilephe Hittiiiiii Arcigiaichii		uAspGluMetSerPE 	01 The Cystle Phethologia Ala Val Asplea Aspleament Ser Phethre Phethre Liber 12 HT (1111 HT	~ ~
:-	171	ClubysAsulle	GlutleSerValHisLg	rsPhePheAsnLeuLc	entyseltalleAspihr	_
۾	7 77					342 .
ž - 3	141	SerThriysValA	ysValAspAsnAlaMetSerAn	rgliculiculystysTy	yrAspValLeuPheAla	160
<u> :-</u>		LeuPhes	ysG	uLeulleI	inProserserse	
ą	14.2			1		342
يد ج	E 4	=	HeAsuSerAlabeuve Hillititititit ATAAALTCIGGATIGGI	Hentysvalsertr 	Phelicul	399
<u>~</u> ⊕	20.]	<u> </u>	Valleous Inmetis Luas ELLELLELLE LITEL STALFACAARTSSAGG	spaspteuValileSc 	ALALYSTI YGTUVATLANDIAMOTGTUASPASPLAUVATTIOSGEPHAGINGUMETLAU FIFFIFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	220 459
يد خ	2.2.1 4.5.0		IyrPhelletysLeusi IIIIIIIIIIIII AHHIAHAAACHGU	rProProMetLegLe 	PysVallacadpflyrPhofletysLacserProproMet LesLeubysGlaProflyrLys 	240 519
> 4	241		Glyser - HILLI	TOGAACACCAGAGGC	OTFICIAL DESCRIPTION OF THE STATE OF THE STAT	243
; ;-	5 4 3	ŧ	Wat toutwo to	A LONG MANAGEMENT	AND I MUMMY AND A	. 4

qu	580	GCACGCATACCAAAACAACTAGAAATGATACAAGAATTATTGAACTTCTCTGTAAAGAA	6.44
5	243		24.4
Dh	640	CATGAATGTAATATAGATGAGGTGAAAAATGTTATTCAAAAATTTTATGCCTTTTATG	469
ΟŸ	244	AshSerLeuG IyLeuVal'tht SerAshGlyLeuProchuValCluAshLeuSer LysArd	24.1
đ	700	AATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGA	4.56
λ q	264	TyrGluslu HeTyrLeillysAsinLysAspLeiAspAlariteuheteuAspHisAsp 	7 <del>8</del> <del>8</del>
ò	284	LysThrLeuGlnThrAspSerlleAspSerPheGlnThrGlnArqThrProArdLysSer	¥ 0 ¥
qq	820	HELLITH   HELI	8/4
ΟŸ	304	AsnLeuAspCluGluValAsnValileProProBroBroBritting Control Asn	* 77
qq	880	AACCTTGATGAAGGTGAATGTAATTCCTGGTCTCCAGTTAGGACTGTTTTGTTTG	9.19
y du	32 <b>4</b> 940	324 ThrileGinginieumetmetileleuasnseralaseraspoinfroseroluasnieu 343 	2. 4. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
δλ	344	IleSerTyrPheAsaAsnCysThrValAsaProLysGlaserTleAsaLysAraValLys	16.4
qq	1000	ATTECTALITATION OF THE PROPERTY OF THE PROPERT	1059
Óλ	364	ASPH COLY (YELLEP DE LYSS PACALALYSA LAVALOL 901 no. 1979 SVATGTU	÷ E
qq	1060	GATAFAGGATACATCTTTAAAGAAAATTTGCTAAAGCTGTGGGAAYAGGGTTGTGGAA	1119
δ á	384	11eG1ySerGluAzqTyrLysLeuG1yValAzqLeuTyrTyrArqValMetGluSerMet	\$ 0 P
9 3	0711	ATTGGATCACAGCALACAAACTTGGAGTTGGTTGTTATTATCGAGTAATGGAATCATG	5/11
à â	1180	Leat. 9358-154 (0.14.1.4.1.4.1.4.1.4.4.4.1.4.8.5.1.1.9.8.4.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	424
ογ	424		44
qq	1240		1299
δò	444	SerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPheProTrp1leLeuAsnVal	46.3
qq	1300	ACTACATCPCAGAATCTTGATTCTGGAACATTTGTCTTTCTCTTTTTTTT	1359
δλ	464	LeuAsniceulysAlaPheAspPheTyriysValileCleSerPheJelysAludidStr	483
qa	1360	CTTAATTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTATCAAAGCAGAAGGC	1419
Oy	484	AsnicuThrArqCluMetiletySHisicuGluArqCysGluHisArqlleMetGluSer	503
qq	1420	AACTTGACAAGAAAATGATAAAACATTTAGAAGGATGTGAACATCGAATCATGGAATCC	1479
ςò	504	LeuAlaTrpLeuSerAspSerProLeuPheAspLeu11etysGluSerLysAspArdGlu	174
q	1480	CTTGCATGGCTCTCAGATTGACCTTTATTTGATGTTATTAAAAAAAA	64.71
65	524	0.19FroThrAspiliatea0.1userAlaCysFroZenAshJendroZeo3hnAshAshIlis 14 H-11 H-11 H-11 H-11 H-11 H-11 H-11 H-	54.4
qa	1540	GGACCAACTGATCACCT FGAATCTGCTTCTCTTAATCTTCCTCTCTCTCAGAATAATCA	1539
S G	544	ThrataAlaAspMetTytt.cuserProValArdSerProTyst.ystysetthribit [11] [11] [11] [11] [11] [11] [11] [11	16.4
3	0001	WEIGHANG AND	1223
à É	1660	ArgValAsnSerThrAtaAsnAladsiuThrGluAlaThrSerAlaPheGluThrGluIys 	78.5 27.5

```
Pet Person of gaptering pet in the control of the c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25 - VILLE FELLE FELLE ACTECAACACCAATGCAAAAGAAAAAAAAATGAATGATAGCATG 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1840 IGGASCITTICCAGCACACCCTGCAGAATGAGTATGAACTCATGACACAGAGACACAGGCATTTG 1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1900 GACCAAATTAIGATGTGTTCCATGTATGGCATATGCAAAGTGAAGAATATAGAACTTAAA 1949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2449 36ATCAGATGAAGCAGATGGAAGTAAACATCTCCCAGGAGAGTCCAAATTTCAGCAGAAA 2499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   644 Aspetts Cometwort grant with Theory (yet) grant Transfer (yet) 663 (1111) [1111] [1111] [1111] [1111]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 *44 11y4507Asp?lvAlaAsp?lySertysHistopProcityCluSertysPheGlnClnLys 843
584 PrefeatlysSerThrSerLeaSerLeaPheTyrLysLysValTyrArgLenAlaTyrLeu 603
                                                                                                                                                                                                                                                                                                                                                                                                                624 TrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArgHisTeu 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                684 ArqValLeuIleLysSluSluSluSluTyrAspSerIleIleValPheTyrAsnSerValPhe 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         744 ihrProlln1,ysMetThrProArgSerArg11eLeuValSer11eG1yG1uSerPheG1y 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    844 issualadluMetihrSerThrArgIhrArgMetGInLysGInLysMetAsnAspSerMet 863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MODIFIED RETINOBLASTOMA THMOR SHPPPFSSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Benedict, William F. Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2560 GATACCTCAAACAAGGAAGAGAA 2583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 32, Application US/09469522
Patent No. US20020151461Al
General INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  884 AspThrSerAsnLysCluGluLys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Xu, Hond-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ÷
                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>2</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
```

IS -Sachandas a caabway

```
99 TrpGlyIleCysIlePheIleAlaAlaValAspLeuAspGluMet.SerPheThrPheIhr 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179 SerSerIleSerThrGluIleAsnSerAlaLeuValLeuLysValSerTrpIleThrPhe 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    310 AGTICGATATCTAGEGAAATAAATEEGGGGGTGCTAAAAGTTECTEGGATCACATTT 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199 LouicuAlatysOlyGlaValLouGlaMetGluAspAspLouVallIcScrPhcGlateu 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   130 GAGCTACAGAAAACATAGAAATCAGTGTCCATAAATTCTITAACTTACAAAAGAAATT 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79 ClutysvalSorSorValAspGtyval*cuC*yCtyrtitcSlctystyStysGlutou 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10 GAGAAAGITICAICIGIGGAATGGAAGIAITGGGAGGITATATICAAAAGAAAAAGGAACIG 69
                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-026-459A-49 (1-971) x US-09-469-522-32 (1 3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative:
Mismatches:
CORPESPONDENCE ADDRESS:
ADDRESSED, Arneld, White & Durkee
STREET: P.O. Box 4433
                                                                                                                                                                                                                                        18,703,1469, 522
                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: 7..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 32:
                                                                                                                                                                                                                                                                                                             Architalina Number 187026,459
FILING DATE: <Unknown>
                                                                                                                                                                COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                 41,071
                                                                                                                                                                                                                                                       FILING DATE: 22-Dec-1999
CLASSIFICATION: <Ucknown>
                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGIH: 3323 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                      512/418-3000
                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                NAME: Hibler, David W. REGISTRATION NUMBER: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                      TELETAN, 512,414-300
LELETAN, 512,474-7577
INFORMATION FOR SEQ ID NO: 32:
                                                                                                                                                                                                                     CURRENT APPLICATION DATA: AFF: 74, FN NUMBER 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4017.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93.298
93.298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89.358
                                                                                            COUNTRY: USA
ZIP: 77210-4433
                                                            CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME, HEY.
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity.
Best Local Similarity:
                                                                           STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-469-522-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·
Ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         걆
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
```

_	17.0	HELLITELE STORE HELLET FELLET HELLET HELLET HELLET HELLET HELLET HELLET HEAGEN AAAG GOODAAG HELLET HELLET HELLET HEAGEN AAAG GOODAAG HELLET HELLET HELLET HEAGEN AG	429
	219	Methendysvallendsplyrbhetlebysbenserbrobrobet Leubeubysglubro : 	2 48
~ -	4.30	1711/981hr   G1ySer	243
	1 47		24.3
	055	ADGAGTOTATGGATAGTAAAATAAGTAGAAAATGATAGAAGAATTATT	609
	24 4		24.3
	6.10	AAAGAACATGAAATGTAATATGAGGTGAAAAATGTTTATTTCAAAAAATTTTTATAGGT	699
14 .5.	244	AshSetLendTyLenValthrSetAshGlyLenProGluValGluAshLeuSer : 	261 7
	262	Lysardlyrdludorlofyrladlysasnlysaspladspalabardrabbelauasp 	281 789
<u> </u>	282 790	HISASPLYSTELEGGIGTETERSPSECTIEASPSECPHEGLUTEGGAATGATTETETETETETETETETETETETETETETE	301 849
Sec. 25	40.2 85.0	ESSECTASHLEGASPETUGTHVATASHVATTTEPTOPTOHTSTREPTOVATALGTREVAT	321 909
S 5	422	Met Ashith Tiedindinieumet Met Heleuasnserataseraspolintroserdiu   Hittilititititititititititititititititit	341 969
× 5	34.2 97.0	Asidice II te Set Tyr Bie Adda Asid ys Thr Val Asid Prolys Gluser II e Leu Lys Arg 	361 1029
>	46.2 10.40	Vallysaspiledlytyrilethetysglulysthealatysalavaldlygluglystillillillillillillillillillillillillill	181 1089
54 A	182	Valgin Hedlyser Glbarg Pyrtyskeud jyvalarg teuryytyvardya imer Glu 	401
> a	402	SerMetteutysserstudiusluargteuserilestnasibhesertysteuteuasn e 	421 1209
Se . 5	422	ASPASE LECPHORISMOT SOLICULAUA (SAN ALCO CLUVALVALVALMETALATION)	441 1269
:4 3	442	Ser Argser Thi Ser Gli Asid cours pser Clythraspleuser Phe Profit pl 1 to 1 t	461 1329
تد حد	46.2	ASUVALE CONTROLOUE, SALAPHONS PROFIT FUNDED FOR USET PROTIDED SALA CONTROL OF THE PROFIT PROFIT FOR THE PROFIT AND STATEMENT OF THE AND	481 1389
:	482	CLUCLYASDARADENTALGUENGET HEDSSHISTCOGUNARGCYSGUURISARGTHOMET   HILLER FELLEN F	501 1449
:	70%	ClusertogAlatrptouserAspSerProtoubleAspteutfetyschissAsp	5.2.1

```
2170 ALTCCIGGAGGAACALCIALATITCACCCIGAACACICCATALAAAALLICACAAAGGI 2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2410 ATTGAAGGATCAGATGAGGAGATGGAAGTAAANATCTYYYAGGAGATIYYAAATTTYAG 2469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2470 CAGAAACTGGCAGAAATGACTTGTACTGGAAAGGCAAAAAGCAGAAAATGAAATGAA 2529
                                                                                                                             1570 AATCACACTGCAGCAGATATGTATCTTCTCCTGTAAGATCTCCAAAGAAAAAAAGGTTCA 1629
                                                                                                                                                                                1810 AFGATCHGGACCTTTHCCAGCACACCHGCAGAAHGACHAHGAACHCAHAGAGACACA TB69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1450 GAALCCCTTGCATGCCLTTCACATTCACCLTTALLTGALCTLATTAAACAAACAACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1930 CITAAAIICAAAAIGAIIGIAACAGAIACAAGAIGIICCIGCIGCIGCIGCIAGAGAGACA 1989
                                                                                                                                                                                                                           582 GlobysProLeabysSerThrSerLeaserLesPheTytLychysValTytArqLeaAla 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             681
                                                                                                                                                                                                                                                                                            602 Tyrt.cuArgt.cuAsnThrt.cuCysGluArgt.cuI.cuSerGluHisProffnt.cuGluHis-621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ValPheMetGlnArqLeuLysThrAsnIleLeuGlnTyrAldSerThrArqFroFroThr 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        722 LouSerProlleProHis!leProArqSerProTyrLysPheProSerSerProLeuArq 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     742 HeProGlyGlyAssileTyrileSerProLedLysSerFroTyrLysTleSerGludly 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   822 IleGluGlySerAspGluAlaAspGlySerLysHisLeuPtsGlyGluSerLysPheGlu 841
                                                                                                                                                             562 ThrThrArqValAsnSerThrAlaAsnAlaGluThrGluAlaThrSerAlaPheGluThr 581
                                                                                                                                                                                                                                                                                                                                                          622 IleIleTrpThrLeuPheGlnHisThrLeuGlnAsnGluTyrGluLeuMetArqAspArq 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          682 PhotysArqValLeutletysSluGluGluTyrAspSertletteValtheTyrAsnSer 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     762 LeuProThrProThrLysMetThrProArgSerArg11eLeuValSer11e31y31uSer 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    802 LeuLysArqSerAlaGluGlySerAsnProProLysProLeuLysLysLeuArqPheAsp 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   842 ClnLysLeuAlaGluMetThrSerIhrAtg1hrAtgMetGlnLysGluLysMetAsnAsp
                                                                                              542 AsnHisthralaalaAsp@cttytkeusertrovalArqsertrokystysetyser
                                                                                                                                                                                                                                                                                                                                                                                                                          642 HisLeuAspGlalleMetMetCysSerMetTyrGlyIleCystysVallysAsnIleAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           662 LeatysPhetysHelleValThrAlaTyrLysAspLeuProHisAlaValGInGluThn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            862 SerMetAspThrSerAsnLysGluCluLys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , oy
                                ŝ
                                                               DP
DP
                                                                                                Š
                                                                                                                           QC
                                                                                                                                                             ŝ
                                                                                                                                                                                           qq
                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
```

```
1 Met ProfrotysThrProArqLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaGluFro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 ProAlaProProProProProProProGluGluAspProGluGluAspProGluGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41 AspicettroleuvalArgieuGluPheGluGluThrGluBluProAspPheThrAlaheu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96
                                                                                                                                                                     TILE OF INVENTION: MODIFIED RETINORIASTOMA THMOR SHPPRESOR
                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWAPE: Patentin Pelease #1 0, Version #1 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US 09 726-459A-49 (1-871) x US-09-469-522-38 (1-3323)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ||crgth:
|Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICALION NUMBER: US/39/469,522
FILING DATE: 22-Dec-1999
CLASSIFICALION: <UNKNOWNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: UTXC:506
                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                indels:
                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DGS/MS-DGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 7..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hibler, David W. REGISTRATION NUMBER: 41,071
                                                                                                                                  Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
IELEFAX: 512/474-7577
                                    Sequence 38, Application US/U9469522
Patent No. US2**020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                               PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 3323 base pairs
                                                                                                                                                                                                                                                                       STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMALION FOR SEQ ID NO. 38:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                               NUMBEP -P SEQUENCES 5:
                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
                                                                                                APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3984.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      85,568
85,568
88,618
                                                                                                                    Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                ZIP: 77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAMEZKEY: CDS
                                                                                                                                                                                                                                                                                             CILY: Houston
                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               eest toral Similarity:
cuery Match:
DB:
                                                                                                                                                                                                                                                                                                           SIATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
                      HS 09:464-522-38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEALURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-09-444-522-38
RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SCLIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
```

	61.0	ys@loLysLeuLysTleProAspWlaValArqsluArqAlaTrpLeuThrTrp3luLys	8.0
qu	- 96		96
Ţ.	я1 ∨	alsorsorval Aspolyvallou Glyclyryr: Polniyslystystystulou frpcly $\ $	100
qq	- 96		96
Qy	101	101 HeCysllePhelleAlaAlaValAspicuAspGluMetSerPheThrPheThrGluleu 120	120
á	- 45		3.5
ä	121 6	InLysAsmileGlufleSerValHisLysFheFheAsmLeuLeuLysGlufleAspThr	140
d	ا عود ر	AGAAAAGATAGAATGAGTGGGTAAATTGTTTTAGTTAGT	15. Et
$\delta T$	n 141	erThrLysValAspAsnAlaMctScrArgLouLcuLysLysTyrAspValLcuPhcAlu	160
선	196 A	GTACCAAAGTTGATAATGCTATGTCAACAATGAAAAATTATTTTTTTT	255
$V_{Y}$	161 1.	euPheSertysteuGluArgThrCysCluteulleTyrt.euThrClnPreserSerser	180
qu	256 0	TCTTTO AGG A A A TTG G A A A G SA O A TTG TTG TTG TTG TTG TTG TTG TTG TTG T	315
ζ.	181 I	Inserth: Gluile AsnSerAlaLeuValLeuLysValSerTrp11cThrhateuLeu	200
qo	316 A	TATOTRACIO DA ANTICIO CATAGO DE TATAGO DE LA TOTAGA DE LA TOTAGA DE LA TOTAGA DE LA TATAGO DEL TATAGO DE LA TATAGO DEL LA TATAGO DEL LA TATAGO DEL LA TATAGO DEL LA TATAGO DE LA TATAGO DE LA TATAGO DE LA TATAGO DEL LA TATAGO DE LA TATAGO DE LA TATAGO DE LA TATAGO DE LA TATAGO DEL	375
5	201 A		055
	376 3	CTANASSSTANSTALIACAATSSASTAISALTISEISAIIICATITCAGITAAIGCIA	435
5	::: ::::	ysValleuAspTyrPtellelysLeuSerProPreMettauLeuLeulysClumelyrLys	240
40	436 P	STOTECTT CACIATITIATIAAACICT CACCICCCATGITGCT CAAAGAACCA FAIAAA	495
60	241 T	hr	243
qd	496 A	ON CONTRATAR OF ATTART GETTINATION OF ARCONOLOGICA GOOD OF A CAGGO A C	555
Οy	243 -		243
QQ	556 6	CACGGATAGCAAAACTAGAAAATGATACAAGAATFATGAAGTLCLCLGLGTAAAGAA	615
Ċ.	243 -		243
ĝ <u>i</u>	قاق ق	ATGAATGTAATATAGATGAGGGGAAAATGTTTATTGTGTTTTATG	675
á	244 A	snSecLeuGlyLeuValThrSerAsnGlyLeuFroGlaValGlaAsnLeuSerLysArg	£97
qa	676 A	ATTCTCTTGGACTTGTAACATCTAATGGACTTCCAGAGGTTGAAATCTTTCTAAACGA	735
72	1 55	<pre>prGluGla!!CTpricalpaAssilpaAsplanapAlaAsplanalbalacusAspRisAsp</pre>	283
ąg	. 736 I	ASSANGAATITATETTI TAAAATAAAGADETAGADGEAAGATTATTTTTGGATGATGAT	795
Qy	284 L	ysThrLeuGlnThrAspSer11eAspSerPheGluThrGlnArgThrProAtgLysSer	303
qq	796 A	AAACTCTTCAGACTGATTCTATAGACAGTTTTGAAACACAGAGAAAAGT	855
ογ	304 A	snLeuAspGluGluValAsnValIleProProHisThrProValArqThrValMetAsn	323
qq	856 A	ACCTITICATIONAGE GARGINATION CONTRACTOR ACTITICATION OF THE CONTRACTOR ACTION OF THE CONTRACTOR	5.5
ΟY	324 T	hrledadinacometMetleLeuAsnSerAlaSerAspClnProSerGluAsnLou	343
qq	916 A	CTATECAACAATTAATGATGATTITAAATTEAGCAAGGATCAACCTTEAGAAAAATGG	975
ΟŅ	344	LeSerTyrPheAshAshCysThrVa AshProLysGluSer1LeLenLysArqVa Lys	363
ag	976 A	TTTCCI ATTITTAGAACTGCAGAGTGAATGCAAAAGAAAGTATAGTGAAAAGAGTGAAG	1:35
i'o	364 A	${\tt spileGlyTyrIlePheLysGluEysPheAlaLysAlaValGlyGlnGlyCysValGlu}$	383

Tue Jan 21 10:04:39 2003

int 1095 int 403 int 403 int 1155 int 1215 int 443 int 443 int 443 int 443 int 443	4 1 4 1 5 1 5	15 15 15 16 16	AG 1695 AG 1695 equ 603 IC 1755 IC 1815 AC 1815	eu 643 11 1875 ys 663 III IAN 1935 AN 1995 IAN 1995	110 2055 TC 2055 FPF 723 CA 2115 PP 743
	PheProTrp11ctcuasn' TrccCATGGATTCTGAAT SerFbe11ctySalaGlu Alt1   HILLI   HIL Alt1   HILLI   HIL Alt1   HILLI   HILL GAACATCGAAT GAACATCGAACAACAACAACAACAACAACAACAACAACAACAACAA	THEFT THE THE THE TANACTOR TO THE	Seralabbedinthroin TCHILLICITECHIC TCHILLICITECHIC AlfyerglesAlaryi CHILLICITECHIC COGLIACOCTARI CPOGLUACOCTARI CPOGLUACOCTARI CCAGAATTAGAACATATC	Leumet argasparghis	ValPhetyrAsnServall (GTATTCTATAACTCGGTC ThrArgProPreTheLeu 11111111111111111111111111111111111
	### ##################################		MANAGORITH	######################################	udlafyraspserffelle (GGAGTATGATAIAIA mileteidlafyralaser (HILLITTILLITTILLI MAHLIGGAGTAGGTTCG (ASERFOTYLLYSPHEPRO
	SET FOR SECTION AND AND ASSET OF THE SECTION OF THE	THE HELLER HELLE	Arqvalasiiser thra Laasaala Gluthrütinala thr Serala Pheclinthrütiniser till 1111111111111111111111111111111111	TEPTATION OF THE STATE CONDITION OF THE STATE OF THE STAT	AraVallearHetyschothothittittittittittittittittittittittittit
1036 384 1096 404 1156 424 1218	444 4664 1436 4844 1396		564 1636 584 1696 604	6.24 1816 644 1876 664	584 1996 704 2056 724
9 6 6 6 A 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	\$ q \$ q \$ q \$ 5 2 5 2 5	2 2 3 2 3 2	5 2 5 2 5 2	4 4 5 4 5 2 5 2 5 2	5 4 5 4 5

```
744 GLYGLYASBI HELYT HESETPTOLEULYSSETPTOLYTLYSTHOSETGLUTLYLEUTTO 763
HTTLITTI HTTLITTI HTTLITTI HTTLITTI HTTLITTI HTTLITTI HTTLITTI HTTLITTI HTTLITTI HTTLITTI 12135
2176 GGAGGGAAGALOLATALTI GAGGGGGGAAGAGAAAAATI GAGAACHU 1909A 2235
                                                                                                                               2356 AGANGIGCTGAAGGAAGCAACCCICCTAAACAACGACAAAAAGAAAACGALGAAATGAA 2415
                                                                                                                                                                                                                                                                                                                                                                                                  2476 CTGGCAGAAATGACTTCTACTCGAACACGAALGCAAAAAGAAAAAGAAATGATAGATG 2535
                                                                                                                                                                                                                                                2256 ACTICIGASANATICCASANANANANASASASASIASIGANASASASASASASTATATANAN 2335
804 ArgSerAlaGluGlySerAsnProProtysProLeutysLysLeuArqPheAspilleGlu 823
                                                                                                                                                                                                                        784 ThrSerGluLysPheGlnLyslleAsnClnMetValCysAsnSerAspArqValLeuLys R03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         844 LeualaGluMetThrSerThrArgThrArgMetGlnLysSGlnLysMetAsnAspSerMet 863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Benedict, William F.
Zhou, Yunti
TITLE OF INVENTION: MODIFIED RETINOHLASTOMA HIMON SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWAKE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
APPLICATION NUMBER: 05/09/469,522 FILINO DAFE: 22-Dec-1999 CLASSIFICATION: +Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKEL NUMBER: 01XC:506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC COMpatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418 - 4000
TELEFAX. 4.12/414 - 7577
INFORMATION FOR SEQ 1D NO: 34:
SEQUENCE CHARACLERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2536 GATACCTCAAACAAGGAAGAGAA 2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 34, Application US/09469522
Patent No. US20020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     864 AspThrSerAsnLysGluGluLys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: $266 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: < Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77210-4434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: 1X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-469-522-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ** RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                            ò
                                                                                                                                   ć
                                                                                                                                                                            <u>q</u>
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                        å
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
```

```
1) ACTIGNOCTACAGAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTAACTAAAAGAA 129
                                                                                                                                                                                                                                                                                                                                                           38 .culrpGlyllcCysllcPhclleAlaValAspLeuAspGluMctScrPhcThrPhc 117
                                                                                                                                                                                                                                                                                                                                                                                                                                             liж ThrGluLeuGlnLysAsnIleGluIleSerValHisLysPhePheAsnLeuLeuLysGlu 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             138 IleaspihrSerThriysValaspasnalaMetSerargicuLeuLysLysTyraspVal 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   190 IIGTTIGCACTOTTCAGCAAATTGGAAAGGACATGTGAACTTATATATTTGACACAACCC 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            178 SerSerSerIleSerThreluIleAsnSerAlaLeuValLeuLysValSerTrpIleThr 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     234 teamorteuCysValleuAspfyrPhetleiysLeuSorProProMetLeuLeuLysClu 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        370 IIAALGCIAIGTGTGTGTTTTTGAGTATTTTTAAACTGTCACCTCCCATGTTGCTCAAAGAA 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24] SerlysArgTyrCluSlu1leTyrLeulysAsnlysAspleuAspAlaArgLeu 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  430 CCALALAAAACAGCIGTTATACCCATTAATIGGTTTCACCTCGAACACCCAGGCGAGGTCAG 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            490 AACAGGAGGCACGGATAGCAAAACAAACTAGAAAATGATACAAGAATTATATGTATCTC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              550 IGTAAAGAACATGAATGTAATATATAGGGTGAAAAATGTTTATTFCAAAAATTTTATA 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        244 ------AsnSerLeuGlyLeuValThrSerAsnGlyLeuProGluValGluAsnLeu 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                670 ICIAAAGGATACGAAGAAATTIATCTTAAAAATAAAGATCTAGATGCAAGATTATTTTG 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28) AspHisAspLysThtLeuGluThrAspSerlleAspSerPheGluThrGlnArgThrPro 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    730 GATCATGATAAAACTCTTCAGACTGATTCTATAGACAGTTTTTGAAACACAGAGAACACA 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 ArglysSerAsnLeuAsp@luGluValAsnVallleProProHisThrProValArgThr 320
                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                               -----GlySer----
                                                                                                                                                                                          Matches:
                                                                                                                                                                                                                                                     indels:
                                                                                                                                                                      Cenqth:
                                                         LOCATION: 7..2502
SEQUENCE DESCRIPTION: SEQ ID NO: 34;
                                                                                                                                                                                          3923,50
                                                                                                                                                                                                           43 148
93.148
POPOLOGY: linear
                                       NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                248 ProTyrLysIhr -----
                                                                                                                                                                                                                             Bost Local Similarity:
                                                                                                                                                                                                       Percent 'amilarita
                                                                                                                                             Aliqument Scores:
                   FEATURE:
                                                                                                     09-469-522-34
                                                                                                                                                                                                                                                     Curry Match:
                                                                                                                                                                   Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4/1
                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
```

```
1090 GAATCCAFGCTTAAATCAGAAGAAGAACGATTATCCATTCAAAAFTTTTAGCAAACTTCLG 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        970 NINCH HITTELLI HI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1036 TGFGGAAAFFGGAAFGAGFGAAFAAAAFTFGGAGTFGGCFFGFATTACCGAGTAATG 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1210 TATAGCAGAAGTACATCICAGAATCIIGATICIGGAAGAGATIIGICIIICCCATGGATI 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1270 CTGAATGTGCTTAATTTTAAAAGCCTTTGATTTTTACAAAGTGATCGAAAGTTTTATATAAA 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1390 ATGGAATGGGTGGGAGGCTGCAGATTGACGTTIAFTTGAFCTTATTAAAGAATGAAAG 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1450 GACCGAGAAGGACCAACTGATCACCTTGAATCTGCLIGICCTCTTAATCTICCTCTCGAG 150%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1750 CATATCATCIGGACCCITIICCAGCACCCIGCAGAAIGAGTAFGAACTCAIGAGAGA 1809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1876 GACCTIAAATICAAAAACAIGIAACAAACAAGGAICIICCTCAIGCIGIICAGGAGG 1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 981 CysValGiulleGlySerGlwArgTyrthysteuClyValArgTeufyriyrArgValMet 400
                                                                                                                                                                                                                             341 GluAsnLeuIleSerTyrPheAsnAsnCysThrValAsnFroLysGluSerIleLeuLys 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 ArqValLysAspileClyTyrilePheLysCluLycPheAlaLysAlaValGlyGluGly 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    401 GluSerMetTeuLysSerGluGluGluArqLeuSerIleGluAsnPheSerLysLeuLeu 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 AsnAspAsnIlePheHisMet.SerLeuLeuAlaCysAlaLeuGluValValWalAlaThr 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        441 TyrserargserThrserGlaasnLeuaspSerClyThraspheuSciPhetholtpHe 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               461 LeuAsnValleuAsnLeuLysAlaPheAspPheTyrLysVallleGluSerFheileLys 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   561 SerThrThrArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAlaPheGln 580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       581 ThrSlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysValTyrArgLeu 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601 AlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisProGluLeuGlu 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 621 HislletterrpThilleaPheGlnHisThilleaGinAsnGlulyrGlaneuMetArgAsp 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661 AspLeuLysPheLysTleIleValThrAlaTyrLysAspLeuProHisAlaValGlnGlu 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  681 ThrPhetysArgValleutletysGluClsGluTyrAspSerfletleValPbeTyrAss 700
321 ValMctAsmithrilcGinGlnLcuMctHel.cuAsnSerAlaSerAspGlnProSer 34c
                                                                                                           850 GITATGAACACTAICCAACAAITAATGAIGAITIIAAAIICAGGAAGGAICAACCITGA 909
                                                                                                                                                                                                                                                                                                                                              910 GAAAATCTGAFFTCCTATTTTAACAACTGCACAGTGAATCCAAAAGAAAGTTGAAA 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481 AlaGluGlyAsnLeuThrArqGluMet.IleLysHisLeuGluArqCysGluHisArqIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                521 AspArgGluGlyBroThrAspHisLeuGluSerAlaCypFroLeuAspLeuFroLeuGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541 AssassifisThralaAlaAspMetTyrLeuSerProValArgSerProLysLysCly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . бо
---
                                                                                                           占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                             ã
                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              â
```

```
19.40 AVATICAAACGTGITITISATCAAAGAAGAAGIAIGATTGATGATATATAGTATTGTATAAC 1989
                                                                                         2170 GGTCTGCCAACACAAAAAAAAAGAACTCCAAGAATCAAGAATCTTAGTATCAATTGGTGAA 2229
                                                                                                                                                                                                                                                                                                                                        761 GlyteurrothreyrothreysMetthreyroArgSetArglieteuValSerileGlyGlu 780
TELETELLETTITELLETTITELLETTITELLETTITELLETTITELLETTITELLETTITELLETTITELLETTITELLETTITELLETTITELLETTITELLETTITEL
                                                                                                                                                          721 ThrLeuserProlleProMisIleProArqSerProTyrLysPheProSerSerProLeu 740
                                                                                                                                                                                                                                                 741 ArqlleProGlyGlyAsnIleTyrIleSerProLeuLysSerProTyrLysIleSerGlu 760
                                                                                                                                                                                                                                                                                                                                                                                                                                    281 SerPhetty Thr SerGlaLysPhethalysTheAsnethaMetValCysAsuSerAspArg 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                801 VallaedysArqSerAlaslaslySerAsnProProlysProLeuLysLysLeuArqPhe 820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         82] AspilodiuGlySorAspGluAlaAspGlySerLySHisLeuProdlyGluSerLySPhe 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841 GluslaLysLenAlaGluMetThrSerThrArqThrArqMetGlnLysGlnLysMetAsn 860
                                                                 201 SerValPheMetGlbArgLealgsThrAshllcLedGlbTyrAlaSerThrArgProPro 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Benedict, William F.
Zhou, Yunli
FILLE OF INVENTION: MODIFIED RETINOBLASTOMA TOWOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFIWARE: Patentin Release #1.0, Versien #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2470 OAFAGGATGGATACCTCAAAGAAGGAAGAAAA 2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORPESSONDENCE ADDRESS:
ADDRESSEE: Arrold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            861 AspserMetAspThrSerAsuLysGluGluLys 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHRENI APPLICATION BARA:
APPLICATION BURNER: BZ/09/469,522
FILINI DATE: 22-Dec 1999
CLASSIFICATION: Oblivown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOP APPLICATION DATA: APPLICATION NUMBER: 09/026,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 41,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Application US/09469522
Fatent No. US2020151461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILLING DATE: + Unknown >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALTORNEY, ZAGENT ENFORMALTON:
NAME: Hibler, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANI: Xu, Hong-Ji
Hu, Shi Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77210 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Bouston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.S.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIATE: IX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US on 469 522 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
                                                                                                                                                                                                   Ē
                                                                                                                                                                                                                                                                                                                                        \frac{2\pi}{2}
                                                                                                                                                                                                                                                                                                                                                                                    \tilde{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
```

```
113 MetSerPhethrPheThrGluLeuGlnLysAsnfleGlnfleSerValHisLysPhePhe 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     256 GlaValGluAsnLeuSerLysAraTyrGlaGlaffeTyrLeuLysAanLysAsheuAap 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         607 GAGGIIGAAAAICTIICTAAACGALAGGAAAITIIATCIIAAAAAIAAAGAICIAGAI 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      153 LystystyraspvalLeuphealaLeupheSert.ysteuGluarq1brCysGluLeu110-172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                173 Tyrl.cuThrGlnProSerSerSerIleSerThrGlulleAsnSerAlaLcuVall.cuLys 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         427 CCCAGGCGAGGTCAGAACAGGAGTGCATGGATAGCAAAACAACTACAAAAHGATACAAGA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   487 ATTALTGAAGTTCTCTGTAAAGAACATGAATGTAATATAGATGAGGTGAAAAATGTTTAT 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         276 AlaArgLeuPhelleuAspHisAspLysThrLeuGInThrAspSerTLeAspSerPhediu 295
                                                                                                                                                                                                                                                                                                                                                                                                                            7 ATGTCGTTCACTTTTACTGACCTACAGAAAACATAGAAATCAGTGTGAAATAAAATTTTT 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G13001
                                                                                                                                                                                                                                                                                          Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                  US-09-026-459A-49 (1-871) x US-09-469 522-4 (1-4218)
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INPORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INPORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                            Matches:
                                                                                                                                                                                                                                                                                                                         indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  233 MetLeuLeutysGlaproTyrtysThr----
                                                                                                                                                                                  EQUENCE DESCRIPTION: SEQ ID NO:
                                                                                       LENGIH: 4218 base pairs
TYPE: nucleic acid
                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                          1842.50
                                                                                                                                                                                                                                                                                       93.01%
93.01%
                                                                                                                                      FOPOLOGY: linear
                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                       Percent Similarity:
Host Local Similarity:
Query Match:
                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                      FEATURE
                                                                                                                                                                                                               US-09-469-522-3
                                                                                                                                                                                                                                                          ..
..
                                                                                                                                                                                                                                                          Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q.
```

Tue Jan 21 10:04:39 2003

```
1507 CCAAAAAAAAAATTETATATAAATTETAATTETAGCAAATGCAGAGACACAAGGA 1566
                                                                                                                                                                                                                                                                                                                                                                                                          1027 IATIACCANTAATGAATCCAIGCITAAATGAGAAGAAGAACATIAFCCAITCAAAAT 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          447 AAICTICCICCCAGAAIAATCACACICCAGAGATATGIATCTTTCCCCTGTAAGATCT 1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glaser HeLeulysArgVallysAcpileGlyTyrHePheLysGluLysPheAlaLys 375
                                                                                                                                                                                                                                            AlavalityGlmGlyCySValGluIleGlySerGlmArgTyrLySLeuGlyValArgLeu 395
                                                                                                                                                                                                                                                                                                                                                                        195 Tyrtyr ArgValMetGluSerMetLeuLysSerGluGluGluArgLeuSerlleGlnAsn 415
                                                                                                                                                                                                                                                                                                                                                                                                                                               416 PheserLysLeuLeuAsnAspAsnIlePheHisMet.SerLeuLeuAlaCysAlaLeuGlu 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValValMetAlaThrTyrSerArqSerThrSerGlnAsnLeuAspSerGlyThrAspLeu 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       476 GluSerPhelleLysAlaGluGlyAsnLeuThrArqGluMetIlleLysHisLeuGluArq 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             438 CystluffisArqIleMetGluSerLeuAlaIrpLeuSerAspSerProLeuPheAspLeu 515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    *1* :letyscinsertysAspargGluGlyProThrAspHisteuGluSerAlaCysProteu 535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            536 AsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArgSer 555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    556 ProlystysLysGlySorThrThrAraValAsnSerThrAlaAsnAlaGluThrGlnAla 575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            924 Thristo AlathecharbrolntgalreteatysSerThrisetheuSerhearheigrigs 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      596 LysValTyrArdLeuAlaTyrLeuArdLeuAsnThrLeuCysGluArdLeuLeuSerGlu 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              516 HisProGluLeuGluHisI]eIleTrpThrLeuPheGlnHisIhrLeuGlnAsuGluTyr 635
296 ThreluArqThrProArqLysSerAsnLeuAspGluGluValAsnValIleProProHis 315
                                                                        416 ThrProValArgThrValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnSerAla 335
                                                                                                                                                  SerAspClnProSerGluAsnLeulleSerTyrPheAsnAsnCysThrValAsnProLys 355
                                                                                                                                                                                   847 AGTGAFGANGGITGAGAAAAIGIGATITGCIATITIAAGAAGIGGGGAGIGAAIGGAAAA 906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          356
                                                                                                                                                                                   \vec{\Xi}
                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                        ΕĒ
                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
```

```
2347 GGAGAGTCCAAATTTCAGCAGAAACTGGCAGAAATGACTTGTACTCGAAGAGGAALGCAA 2406
                                                                                                                                                                                                                                                                         1867 FATGOTGTTOAGGAGATATOAAFGTGTTTTGAIGAAAGAGGAGGAGTATGAITOIAII 1926
                                                                                                                                                                               676 HisalaValCinGluThrPhetySargValLeuLictySCluCluCluClatyFaspSerlle 695
                                                                                                                                                                                                                                                                                                                                                                   696 ileValPheTyrAsnSerValPheMetGlnArgLeuiysThrAsnIleLeuGlnTyrAla 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   716 SerThrArgProProThrLeuSerProIleProHisIleProArgSerProTyrLysPhe 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             756 TyrLysIleSerGluGlyLeuProThrProThrLysMetThrProArgSerArglleLeu 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            775 ValSerIleGlyGluSerPheGlyThrSerGluLysPheGlnLysIleAsnGlnMetVal 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       796 CysAsnSerAspArgValLeuLysArgSerAlaCluClySerAsnProProLysProLou 815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       816 LystysteuArgrheAspileOluOlySerAspClaAlaAspClySerLysHisLeuPro B35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      836 GlyGluSerLysPheGlnGlnLysLewAlaGluMetThrSerThrArgThrArgMetGln 855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: MODIFIED RETINOBLASTOMA TUMOR SUPPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 956 | 1980| 2014 SMCTASIASAL MCTASP DA SCHASIAGS DUCLUÇE | 971 | 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 1111| 111| 1111| 1111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 111| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 11| 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABBLICATION NUMBER 17, 75, 469, 522
FILING DATE: 22-Dec-1999
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Benedict, William F.
Zhou, Yunli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER BEADABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 44, Application US/09469522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. BOX 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSED: Arrold,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Xu, Hong-Ji
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Shi - Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No. USZUGZUIS1461A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-469-522-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ġ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
```

```
101 TLOCYSTLEPhetToAlaAlaValAsplæuAspGluMetSerPheThrPheThrGluLeu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      807 AICTOTATCTTIATTGCAGCAGTTGACCTGTTATACCCAITAAIGGTTCACCT--- 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 ChatysAcothethetheenValHietysPhetheAsuLetteutysGlufleAspThr 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141 SerThillysValAspAenAlaMetSerArdTeufentystysTyrAspValLeuPheAla 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181 IleSerThrGlufleASnSerAlaLeuValLeuLysValSerTrpIleThrPheLeuLeu 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161 temPhesertysteuGluArq1htCysGluteuTleTyrLeuThrGlnProSerSerSer 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201 AlaLyschyGluValLeuGluMetGluAspAspLeuValHeSerPheGlnLeuMetLeu 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 CyschilysLeulysTleProAspHisValArqGluArqAlaTrpLeuThrTrpGluLys 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21 ProAlaProProProProProFroGluGluAspProGluGlnAspSerGlyProGlu 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41 AsplemProLeuValArqLeuGluPheGluGluThrGluGluProAspPheThrAlaLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l MetProProLysThrProArgLysThrAlaAlaThrAlaAlaAlaAlaAlaAlaAlaGluPro 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 4 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            47D CCCAGGGAGGATAAAAAAAAAGGAGTGCAGGGATAGGAAAAA - - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US 09 026 459A 49 (1-871) x US-09-469-522-44 (1-3161)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAACTAGAAAATGATACAAGAATTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
                                                                               REGISTRALLON NUMBER: 41,071
REFERENCE/DOCKET NUMBER: UTXC:506
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                         LOCATION: 7.12397
SEQUENCE DESCRIPTION: SPQ ID NO: 44:
APPLICATION NUMBER: 09,7026,459
                                                                                                                                           TELEPHONE: 512/418-8000
IELEFAX: 512/474-7577
INFORMALION FOR SEQ ID NO: 44:
                                                                                                                                                                                                                             LENGTH: 4161 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
               FILING DATE: + URKNOWN + AFTORNHYZAGENI INFORMATION: NAME: HIDLOT, DAVIG W.
                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1799.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      87.21%
86.19%
84.50%
                                                                                                                                                                                                                                                                                                 Polediákiy: Linear
                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                           Albemment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                 US 09 469 522 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Suerry Matchill
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
```

QQ	436	GAAGITCICIGIAAAGAACAIGAA	
0.7	221	CysVallouAspTyiPhelletysLouserFroFroMetLouLou 235	
qa	460		
ογ	236	LysGluProTyrLysThrGlySerAsnSerLeuGlyLeuValThrSerAsnGlyLeuPro 255	
વેલ	514		
ΟŊ	1.256	256 CIUVATGI UASILGUSETT. JSATTTTGI UGI UTTTT. GULG SASLI GSASLIA (ARE) 275 (FILLI IIII IIIIIIIIIIIIIIIIIIIIIIIIIII	
qq	550	GAGGITGAAAAICITICIAAACGAIACGAAGAAAIITAICITAAAAAIAAAGAICTAGAI 609	
οΣ	276	AlaArgkedkelæaAspHisAspkystktkeddinthtAspectiicAspectBeeku 295	
Q C	610	GCAAGATTATTTGGATGATGATAAAACTGTTGAGAGTGATTGTATAGAGAGTTTTGAA 669	
40	396	ThrdinArgThrPrcArqLysSerAsnLeuAspGluGluValAsnVall1eProProHis 415	
qc	670	ACACAGAGAACACCACGAAAAAGTAACCTTGATGAAGAGGTGAATGTAATTGCTTCACAC 729	
οy	316	ThrProValArgIbrValMetAsnIbrIleGlnGlnLeuMetMetHeleuAsnSerAla 335	
ПÞ	730	ACTCCAGTTAGGACTGTTATGAACACTATCCAACAATTAATGATGATTATAAATTCAGCA 789	
, 0,y	336	Ser Aspoint resercions and the seriet seriet series and series are series and	
00 0	790	ACTGATCAGAAAAATCTGATTTCCTATTTTAACAGAGAGAG	
ΟŅ	356	GluSerIleLeuLysArgValLysAspIleGlyTyrIlePheLysGluLysPheAlaLys 475	
qu	850	GAAAGTATACTGAAAAGAGTGAAGGATATAGGATACATCTTTAAAGAGAAATTTGCTAAA 909	
ΟY	376	AlaValGlyGlyGlyGySValGlulleGlySerClnArgTyriysLeuGlyValArqLeu 395	
q0 .	910	GCTGTGGGACAGGGTTGTGTGTGTGTGTGTGTGTTTTTTTT	
Oy	396	TyrTyrArgValMetGluSerMetLeuiysSerGluGluGluArgLeuseriledinAsn 415	
qn .	970	TATTACCGAGTAATGGAATCCATGCTTAAATCAGAAGAAGGATTATGGATTAAAAT 1029	
 	416	PheSerLysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAldrysAlaLeuslu 435	
qa :	1030	TTTAGCAAACTTCTGAATGACAAGATTTTTCATATGTCTTTATTGGCCTGTCTTTTTTTT	
ÓΥ	4 36	ValValMetAlaThr1yrSerArgSerThrSerGlnAsuLeuAspSerGlythrAspLeu 455	
qq	1090	GTTGTAATGGCCACATATGCAGAAGTACATCTCAGAATCTTGATTGTCTGGAACAAGTTG 1149	
ΟŸ	456	SerPheProTrp11eteuAsnValteuAsnteutysAlaPheAspPhetyrtysValtife 475	
qq	1150	TCFTTCCCATGGATCTGATCTGCTFAATTTAAAAGCCTTTGATTTTTTTTTT	
Ç	476	GluSerPhelleLysAlaGluGlyAsnLeuThrArqGluMetIleLysHisLeutluArq 445	
qu	1210	GAAAGTITITATGAAAGGAAAGGGAACTIGACAAGAAAATATTATTATTATTATTATTATTATTATAAGGAAAAAA	
ογ	496	CysGluHisArglleMetGluSerleuAlaTrpLeuSerAspSerProteuPheAspLeu 515	
da	1270	TGTGAACATCGAATCATGGAATCCCTTGCATGGTCTCAGATTCACCTTTATTTGATCTT 1429	
ογ	516	Hetyscinserbysaspargdudtyprothrasphistrudingeralacysprotrugal 935	
qu	1330	ATTANACAATCAAAGGACCGAGAAGGACCAACTGATCACCTTGAATCTCTTCTTCTTTTTTTT	
ογ	536	AsnLeuProLeuGlaAsnAsnHisThrAlaAlaAspMetTytLeuSerProValArqSer 555	
q	1390	AATCITECTECCAGAATAALGACAGUGAGCAGALAHGIATCITICTECTEGAAGALCI 1449	
ογ	556	ProtystystysGtyserThrThrArgyalAsnserThrAlaAsnAlaGtuThrGtnAla 575	
qq	1450	CCAAAGAAAAAAGTFCAACTACGCGTGTAAATTCTACTGCAAATGCAGAGAGAAAAGAAATGCAAAAAAAA	

451	576 1510	ThiseralaphedinthidintysProteulysSerThrSertcuSertcuSpertyrtys 595	.95 .569
0.Y 0.b	596 1570	Lysvallyrarglenalafyrlenarglenasmihrtencysgluarglenaerdin 615 	.15 629
\$ <del>2</del>	616 it.to	BisprodluteugluHisibelleTrpThrLeuPheGluHisThrLeuGlnAsnGluTyr 635	.35 689
항 <u>중</u>	6.46. 1690	GlubaumetargasparghisbouaspolnflemetmetcysScrmetTyrolyHocys 655 	.55
5 ±	1750	TysvallysasnileasploulysphotystlotteValthralafyrLysasploubro 675 	.75
5 g	1810	BESALAVALGINGBUTHEPPALYSARGVALFOUTHELYSCHUGLUGLUTYRASPSETINE 695 	969
5 8	1873	TeValPhelyrAsnSerValPheMetGinArglesutysThrasnileLeuGinTyrAla 715 	15
5 3	71.6 19.80	Ser DrangropforbilesSerprolleprobis1leproargserprolynlysphe 735 FERTITITITITITITITITITITITITITITITITITITI	35
3 E	38.7		55
5 da	756	yrlys  eserc ug yleubrothrProfhrlysMetThrProArgSerArg  eleu 775 	75
5 5	776. 211.	ValserilediydluserPhediythrserdlulysPhedlulysTleAsndluMetVal 795 	95
á á	796 217	CycasseraspargValleuLysargseralastastastastranproproLysproleu 815 	115
5 8	<u>x</u>	Lystystenargbheaspileciuclyseraspoinalaaspolysertyshisteupro 835 	135
8 8	3F F	Glydluserlysphedinglnigsleualadlumetthrserthrafgthrafgmetdin 855 * H.	155 1349
ž č	856 2450	LysglolysMetAsnAspSerMetAspThrSerAsolysGluGluLys 871 	

Search completed: January 19, 2003, 05:47:54 Job time : 156.582 secs

```
Popyright (**) 1993 - 2003 Compagen Ltd.
GenCore version 5.1.3
```

M profein - nucleic search, using frame plus pln model

January 18, 2003, 04:12:19 ; Sourch time 50,9129 Seconds (without alignments) 5391.080 Million cell updates/sec Pun on:

TPMOKOKMNISMIJSNKEEK 895 Perfect Score:

1 MUDSGPEDIPLYPLEFEETE Serptember:

Xqapop 10.0 , Xqapext Yqapop 10.0 , Yqapext Equpop 6.0 , Equipart Delop 6.0 , Gelext HINSUMEZ Scoring table:

441 962 seqs, 15438381 residues sear ched. total number of hits satisfying chosen parameters:

Minimum folk seq length: 0 Maximum bk seq length: 2009990009

Post processing: Minimum Match 0%

Maximum Match 190% Listing first 45 summaries

Mendal tine parameters:

Mendal trane parameters:

Mendal trane parameters:

Mendal trane parameters

Mendal Sina (Mendal Deviath Stretchen)

Mendal Minner (Mendal Deviath Stretchen)

Mendal Mendal Mendal Stretchen

Mendal Mendal Mendal Stretchen

Mendal Mendal Mendal Mendal Mendal Mendal Mendal

Mendal Mendal Mendal Mendal Mendal Mendal Mendal Mendal

Mendal Mendal Mendal Mendal Mendal Mendal Mendal Mendal

Mendal Mendal Mendal Mendal Mendal Mendal Mendal Mendal Mendal

Mendal Mendal

Issued Patents\_NA:\* latabase :

Secure terrors and the second 
Pred, No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Jescription		Sequence 4, App		~	Sequence 7, Appl.		Sequence 7, App	_	ca.	Sequence 1, App	٠,	,
Josef	Seque	nbos	Sedin	Sedin	Sedin	Sedin	Sedin	Section	Sedu	Section	Sedin	
	0.67	6.27-4	8 - 760	114-3	118:08 959 638:7	0.457 - 1	US: 08: 328: 67:4A: 7	750 - 1	760.2	091-1	2 196	
		7.1 20 31	E E	5 7	6/36	394 - 1	87.	-840-	2	470-	6.24	
ĝ.	B6-511	281 80 30	118 - 08	60.86	$08 \cdot 08$	PCT-D	$0.8 \cdot 0.8$	US-08	ug 08 048 760 2	0.8 - 0.8	US-08-479 091 2	
*		-4	-	₹.	~	u"	~7	-		^4	^;	
* Jacky Match Length DB	\$667	1334	\$66.7	7,334	34,4.7	71,194	36,6,7	1212	1212	75.75	] ]	
Match	9.66	6, 6,6,	6, 6,6,	6.66	6.65	H . (, (,	1,1 7	÷ . E	91.3	Ŧ : [5	¥ . T i	
alous	46.03	45003	46.03	45.03	46.019	4606	46.57	4213	4.23	4 11 1	4.2.1	
arsult No.	-	-4	~	₹	<u>,</u> `	ď.	~	x	э <b>г</b>	9	11	

Sequence 1, App 1, Sequence 1, App 1, Sequence 1, App 1, Sequence 1, App 1, Sequence 2, App 1, Sequence 1, App 1, Sequence 1, App 1, Sequence 2, App 1, Sequence 2, App 1, Sequence 2, App 1, Sequence 3, App 1, Sequence 3, App 1, Sequence 2, App 1, Sequence 3, App 1, Sequence 4, A	Sequence 42, Appl Sequence 41, Appl
08. 08. 842. 877-1 09. 02. 728. 862-1 09. 03. 728. 862-1 08. 08. 106. 493A-1 08. 09. 214-2246-1 08. 09. 214-2246-1 08. 09. 214-2246-1 08. 09. 214-2246-1 08. 09. 214-2246-1 09. 08. 454. 627-1 09. 08. 454. 627-1 09. 08. 454. 644. 44 09. 08. 446. 44 09. 08. 446. 44 09. 09. 541. 742-1 09. 09. 541. 742-1 09. 09. 541. 742-1 09. 09. 541. 742-1 09. 09. 541. 744-1 09. 09. 444. 44 09. 09. 444. 44	US-09-407-562-42 US-08-970-269A-41
Ининиффиникиманный матерамана и филомана	च ः।
4 4 9 9 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	11874
	ni ni
779.5 7688 7768 7768 7769 7769 7769 7769 7768 7769 7768 7768	125
######################################	4 4 4 5

## ALLIGNMENTS

```
CHARACTERIZATION OF A NOVEE ANTE PITORH
                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWAKE: Patenth Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                           11 TOWNSEND & FOWNSEND & CREW LLP TWO EMPANYABLES OFFILER, RIH FLOOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 16930-0004000S TELECOMMUNICATION INFORMATION:
                                                                                                                                                                MCMOCLONAL ANTIBODY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POL/20892/05866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/204,429
FILING DATE: 15-AUG-1994
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: THM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                     Sequence 2, Application US/08204329
Patent No. 5710255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35,146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1: (415) 326-2400
(415) 326-2422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 14.501L-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                APPLICANT: SHEPARD, H. M. APPLICANT: WEN, SHU F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: RENEE A. FITTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
                                                                                                                                                                                                       TERESON BENEFICES
                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                       SAN FRANCISCO
                                                                                                                                                                                                                                                                                             CALIFORNIA
                                                                                                                                            TITLE OF INVENTION: FITTE OF INVENTION:
                                                                                                                                                                                   DRONDING STORY OF SERVICE
                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                 U.S.A.
                                                                                                                                                                                                                                                                                                                                94111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
                                                                                                                                                                                                                               ALDRESSEE: VIPEEI 11
                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX:
                        ti 8 - 06 - 504 - 356 - 5
                                                                                                                                                                                                                                                                                           STATE:
                                                                                                                                                                                                                                                                       C11Y:
RESULT 1
```

HECKMATION FOR SEQ 1D NO BOUNTH TO TARACTER STICL LEGENTH TO TARACTER STICL STRANDEDNISS Adouble STRANDEDNISS Adouble STRANDEDNISS Adouble STRANDEDNISS Adouble STRANDEDNISS Adouble DOS 08-204-329-2  Alignment Scores:  ADDECOLE TYPE: DNA (CD 00) BORTON O.: A609 Norcent Similarity: 100. BORTON O.: A609 Norcent Similarity: 100. BORTON O.: A609 Norcent Similarity: 100. BORTON O.: A609 DDE-TY MALCH: 111111111111111111111111111111111111
--

```
1081 GAAAATCITICTAAACGATACGAAATTIAICTIAAAAATAAAAGAICTAGATGCAAGA 1140
                                                                                                            1381 ATACTGAAAAGAGTGAAGGATATAGGATACTTTAAAGGAGAAATTTGCTAAAAGCTG1G 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1681 CCALGARITOTGAATGIGOTTAAATTTAAAAGCTTTGATTTTTAGAAGTGATGAAGT 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021 AATTITATAGGTTTTAAGGTTTTGAALTGTGAAGATGTAAGATGGAGTTGCAGAGGTT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 342 ValArgThrValMctAsnThrIleGlnGlnLcuMctMetIleLeuAsnSerAlaSerAsp 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      442 LysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAlaCysAlaLeuGluValVal 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     462 MetAlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPhe 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  482 ProTrpIlcLcuAsnValLcuAsnLcuLysAlaPhcAspPhcTyrtysValHcGluSer 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  522 HisArgileMetGluSerLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLys 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysLysGlySerThrThrArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSer 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             622 TyrArgLeuAlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisPro 641
                                                                                             302 LeuPheLeuAspHisAspLysThrLeuGlnThrAspSerlleAspSerPheGluThrGLn 321
                                                                                                                                                            322 ArgThrProArgLysSerAsnLeuAspGluGluValAcnValIleProProHisThrPro 341
                                                                                                                                                                                                                                                                                                                                                         382 IleLeuLysArgValLysAspIleGlyTyrIlePheLysGluLysPheAlaLysAlaVal 401
                                                                                                                                                                                                                                                                                                                                                                                                                          402 GlyGlnGlyCysValGlulleGlySerGlnArgTyrLysLeuGlyValArgLeuTyrTyr 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   502 PhelleLysAlaGluGlyAsnLeuThrArgGluMetlleLysHisLeuGluArgCysGlu 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 542 ClnSerlysAspargCluClyProThrAspHisLeuGluSerAlaCysProLcuAsnLeu 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                562 ProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArqSerProLys 581
                                                                                                                                                                                                                                                                                          362 CInProSerCluAsnLeulleSerTyrPheAsnAsnCysThrValAsnProLysCluSer
                                                                                                                                                                                                                                                          1261 GTTAGGACTGTTATGAACACTATCCAACAATTAATGATGATTTAAATTCAGCAAGTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                             a
                                                                                                                            qq
                                                                                                                                                            έŝ
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                         Ģ.
                                                                                                                                                                                                                                                                                                                                                         ά
                                                                                                                                                                                                                                                                                                                                                                                         qu
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CP
CI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Op
                                                                                                                                                                                                                             .70
                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
2761 FFECCHILICALALICAACHALCAALICAACCACAGAGGAAGTAAACALCECCCAGGAGAG 2820
                   2821 TPPAAATITGAGGAAAAGTOGGAGAAATGAGTICTACTCGAAGAGGAATGCAAAAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          842 LegargbhoaspilediachyserasphoaaasphigertysHisteuproClychu 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          822 SorrasparqValloutysarqSorrataGtuGtySorraspPropretysProtectystys 841
642 GlutzeuGlaffistleileitpthrizeuzheGluffsthrizeuGlaAsuGlufyrGluteu 661
                                                                                                                                                                                                                                              702 ValGlushufhrPhetysArqValLeutletysGlushufyrAspserfletteVal 721
                                                                                                                                                                                                                                                                                                                              7.22 PhotyrAsnSerValPheMetGlbArqLenLysTbrAsn11eLenGlb1yrAlaSerThr 741
                                                                                                                                                                                                                                                                                                                                                                                                            742 ArgProProThiLeuSerProIleProHisIleProArgSerProTyrLysPheProSer 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            782 TleserchustyteutrothritzsMet.thrProArgSerArgIteteuValSer 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            802 11edly::LiserPhettly:Thro-rolatiysPhedintysIleAshdlaMetValCysAsh 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        862 SertyschedindinkystemAladiaMetThrSerThrArgThrArgMetGlnLysGln 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IIILE OF INVENTION: Retinoblastoma Gene Cancer Suppressor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZBBI AAAATGAATGATAGCATAGCTCAAACAAGGAAGAAGAAA 2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        882 TysMetAshAspSetMetAspIhrSerAshLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AdoRESSEE: Campbell and Flores
STREET: 4470 to Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and Regulator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4. Application CONCRESCOT
Patent No. 5998144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : Floppy disk
IBM PY compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Lee, Wen Hwa
APPLICANT: Lee, EZA Y-H.P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVESTION:
NUMBER OF STUDENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              San Diedo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDICIA TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        THINIKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USE UR 482 5.27 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIAIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : J.J. F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FESTI 1 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
```

```
122 TyrAspValLesPScAlaLeaPhdScrtysLeadiaArqThrCysClub.adjclyrLea 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 TGGTTAACTTGGGAGAAGTTTGATGTGTGGATGGACTATTGGGAGGTTATATTGAAAAG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                162 LeuLysGlulleAspThrSerThrLysValAspAsbAlaMetSerArgLeuLysGlulleAspThrSerThrLysValAspAsbAlaMetSerArgLeuLysGlulleAspThrSerThrLysValAspAsbAlaMetSerArgLeuLysGlulleAspThrSerThrLysValAspAsbAlaMetSerArgLeuLysGlulleAspThrSerThrLysValAspAsbAlaMetSerArgLeuLysGlulleAspThrSerThrLysValAspAsbAlaMetSerArgLeuLysGlulleAspThrSerThrLysValAspAsbAlaMetSerArgLeuLysGlulleAspThrSerThrLysValAspAsbAlaMetSerArgLeuLysGlulleAspThrSerThrLysValAspAsbAlaMetSerArgLeuLysGlulleAspThrSerArgleuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCeuLysGlulleAspThrCe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 142 ThrGliptoSerSerSerTleSerThrClij LeAsinSerAlalæuValLeatysValSer 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421 AAAAAGGAACTGTGGGGAATCTGTATCTTTAGTAGTTGACCTAGATGAGATGTCG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 82 PheThrPheThrGluLeuGlnLysAsn1LeGluIJeSerValHisLysPhePheAsnLeu 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22 ProAsprical bralaica Cysclaigsia dysileiro AspRisValArquiu Aria 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42 TipLeuThiTrpGluLysValSerSerValAspolyValLeuGlyslyrHeGlnLys 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM: PC-DOS/MS DOS
SOFTWARE: Patentin Release #1.0, Version #1.80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-026-459A-29 (1-895) x US-08 482 627 4 (1 2994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels:
                                                                      CLASSIFICATION: 445
TOR APPLICATION: 445
TOR APPLICATION: 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEFERENCE/TECKET NUMBER: F UC 1207
                                                                                                                                                                                                                                 PRIOR APPLICATION DAIA:
APPLICATION DAIA:
APPLING DATE: 28-SEP-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                Campbell, Cathryn A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (619) 545 8949
INFORMATION FOR SEQ 1D NO: 4:
SEQUENCE CHARACHERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2994 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                refrent Similarity: 100.00%
Best Local Similarity: 100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4609.00
                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    868.66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               149...2924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : LOCATION:
US 08 482 627-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : Hd k l
                                                                                                                                                                                                                                                                                                                                                                                                NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
```

201	221	241	261 1020	281 1080	301 1140	321 1200	341 1260	361 1320	381 1380	401	421 1500	441 1560	461	481 1680	501 1740	521 1800	541 1860	561
iMeticuCysvallouAspTy1 	02 LeulyssiuprotyrLysthrAiaVallleProlleAsoslyserProArgthrCArg 	erAlaArqIleAlaLysGlnLeuGlu/ 	H cagystyschettschegysash Leas	ASD 111	2 GludsüleüSerlysArqfyrGlüdlüllefyrle <sup>e</sup> 	2 TempheteuasphisasphysthrieuGluthraspserifeaspserpheGluth 	2 ArqThrProArqLysSerAsnLeuAspGluGluValAsnValIlePro 	2 ValargibrvalMetasaihrileglöölnLeuMetMetileLeuAsasseralasseras 	2 GlubroserGluAsm.culleSerfyrPh 	<pre>2 IleteutysArqValtysAspileGl</pre>	2 GLycheolycysValshulleGlyserGl 7 FLEETHEETHEETHEETHEETHEETHEETE 1 GRACAGGATEGTGAAATTGGATEACA	2 ArdvalMetGluSerMetLeulysSerG 	2 LysteutenAsnAspAsnIlePheHisMetSerteutenAlacysAl 	<pre>- MetAlaThrTyrSerArgSerThrSerGlnAsnLeuAspSerGlyThrAspLeuSerPh -                                      </pre>	2 ProfipileteuasmValleuasmteulysalapheaspphenyrlysVa 	2 PhysiketysAlushoskyasoberthzArgst 	2 HisarqiləMeiGlüserLeualaTrpLeuserAsp 2   1   1   1   1   1   1   1   1   1	12 GinserlysAspArgGluGlyhroThrAspHisLeuGluSerAlaCysProLeuAsnLeu
1.	7 8	ગં ૐ	V 5	7 3:	12	÷	* 12	44.1	÷ ÷	\$ £	ें के क	<b>₹</b> 3.1	ਚੇ ਨੂੰ	ने हैं	B ×	ž ,-	u' E	نی
् स	≳ ⊋	\$ 8	÷ =	→ <u>=</u>	→   →	축 품	<u>≥</u>	숙 굨	<u>&gt;</u> ÷	<u>≥</u> ÷	숙곡	<u>는</u> 글	<u>₹</u> ; ≟	÷ -	날 ~	<u>≥</u>	숙속	5

2101 TATCGGCTAGCCTATCTCCGCCTAAAFAGAGTTVGTSAACGCCTVCTGTGTCTGACCACCAC 2160 2280 2460 2520 2640 1921 CCTCTCCAGAATAATCACACTGCAGCAGATATGTAFCTTTCTCCTGTAAGATGTGCAAAG 1980 761 781 562 ProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSerProValArqSerProLys 581 701 801 862 SerLysPheGlnGlnLysLouAlaGluMeUThrSerThrArqThrArqMetGlnLysGln 881 682 LysAspileAspLeutysPhoLysileileValThrAlaTyrLysAspLeuFroHisAla 2581 ATTTCAGAAGGTGTGCCAACAACAAAATGACTGCAAGATCAAGAATGTGAGATGTAAGA 582 lystysclyscrührührargValAsnscrührAlaAsnAlaGluthrGluAlafbrscr 622 TyrArgLeuAlaTyrLeuArgLeuAsnThrLeuCysGluArgLeuLeuSerGluHisFro 2401 TITCTATAACTICGGTCTTEATGEAGAGTGAAAAAAATATTTTGCCAGTATGETTGCAAA 762 SerProteuArgllePreStyStyAsmileTyrileSerProtectysSerProtyrtys 782 HeSerGluGlyncuPtoThrProThrLysMetThrProArgSerArgHeLeuValSer 2701 AGPGAPPGEGTPAAAAGAAGFGPTGAAGGAAGCAACPGCTAAAGCACTGAAAAA 702 ValGingluThrPhetysArgValleafletysGluGlaCluTyrAspSetileTicVal 2881 AAAATGAATGATAGCATACCICAAACAAAGAAAA 2922 882 LysMetAsnAspScrMetAspThrScrAsnlysGluGlunys 895 RESULT 3 ud . à q qq g õ g ŏ ď qq ò. ò q 6 ó a Š 6 :. [] ő 5 ò.

US-08-801-092-3

```
82 Ph-Th/Ph-Th/CluLeuGluLysAsnIleGluIleSerValHisLysPhePheAsnLeu 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 PAGGAMAGGGMAGGAGGAGGACTIGGTCTTGAGTTTGAAGAAAAGAGAAAA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22 ProAspPheThrAlaLeuCysGinLysLeuLysIleProAspHisValArqGluArqAla 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          42 http://drintpiint/sValSerSerValAspiilyValLeuGlyGlylyrilleGlnLys_61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 62 LystysGluLeuTrpGlyTbeCysTlePhefleAlaAlaValAspLeuAspGluMetSer 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2994
894
                                                                                                            TITLE OF INVENTION: Tissue Specific Expression of
TITLE OF INVENTION: Retinoblastoma Protein
                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                     COMNSEND and TOWNSEND and CREW LLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US 09 026 459A 29 (1 895) x US:08:801 092:3 (1-2994)
                                                                                                                                                                                                      Two Embarcadero Center, 8th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               redels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 016930-001020
                                                                                                                                                                                                                                                                                                                                                                                                         IMBER, 1832/8/2801-042
14 FEB 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 98/751-517
FILLING DATE: 15 NOV 1996
                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC DOSZMS DOS
Sequence 4, Application US/SBB01092
Patent No., 6074850
                                                 APPLICANI: Antelman, bondlas
APPLICANI: Gregory, Richard J.
APPLICANI: Wils, Kenneth N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35,136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 415-576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                       Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGIH: 2994 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4609,00
                                                                                                                                                                                                                                                                                                                                                                                          TURKENT APPLICATION DATAS APPLICATION NUMBER, BSZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100,00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               868.66
                                                                                                                                                 4.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ELICPHONE: 415 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SECTION NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fitts, Renee A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIRANDEDNESS: single
                                                                                                                                               NUMBER OF SEQUENCES: 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                 IMPULER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER:
                                                                                                                                                                                                                        San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   murlete aeid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                 GENERAL INFORMALLON:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity:
                                                                                                                                                                                                                                                                -1.S.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Moleymen TYPE:
                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
                                                                                                                                                                                                                                                                           94111
                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alliquition (Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TemperLewity:
                                                                                                                                                                                                                                                            COUNTRY
                                                                                                                                                                                                        STREET
                                                                                                                                                                                                                                            SIAIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               guery Mateha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ž ....
```

```
1261 GTFAGGACTOTFALGAACAATCGAAGAATTAAFGAATTTTAAATTGAGAAATTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             441 GGACAGGGTGTGTGCGAAATTGGATCACAGAAAATTGGAGTGGGGGTGTATTAC 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  501 CGAGTAA1GGAA1CCA10011AAA10AGAAGAAGAAGATIA1OOA110AAAA1111AOO 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IIAI FTATEFETGAEGAEGAEAAAGECETEGAGACEGALCTAIAGACAGIIITGAAACAG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961 GAAGTITGIFGITAAAGAACATGAATGITAATATAGATGATGAGAAAAALGTITTALTITGAA, 1020
                                                        601 TALGATGTATTGTTTGGACTCTTCAGCAAALIGGAAAGGACATGLGAACLIALAIALILIG 660
                                                                                                                                                                                                                                                                                                                                                     202 (eddys)31m37mm4kaVallefmolicAsablyacificAra (2)
                                                                                                                                                                                                                                                                                                                                                                                                                                 202 CluAsnLcuSerlysArqlyrGluGluflefyrLeuLysAsnLysAspLeuAspAlaArq 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               402 LeuPheLeuAspilisAspilysThrieuGhrithrAspsor (IeAspsorphos)...phr61n 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                342 ValArgThrValMetAsnThrlleGInGInLeuMetMetlleLeuAsnSerAluSerAsp 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        462 GlnProSerGluAsnLeulleSerTyrPheAsnAsnCysThrValAsnProLysGluSer 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                382 HeleutysarqVallysAspileGlyTyrHePhetysGlutysPheAlatysAlaVal 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        402 GlyclinclycysValcluileClyserClnArgiyrtystasdlyValArgia HTP1 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           142 ThrGlnProSerSerSerHeSerThrGlnHeAsnSerAlaLeuVallzenLysValSer 161
                                                                                                                                                                                                                     661 ACACAACCAAGATTCGATACTACTACTAAATAAATTCTGCATTAGTGCTAAAAATTTCT 720
                                                                                                                                                                                                                                                            162 Trpl1eThrPheLeuLeuAlaLysGlyGluValLeuGluMetGluAspAspLeuVallle 181
                                                                                                                                                                                                                                                                                               721 ICGATCACATTTTTALLAGGTAAAGGGGAAGTALACAAATGGAAGALGALCTGALT 280
                                                                                                                                                                                                                                                                                                                                    182 SerPheGlnLeuMetLeuCysValLeuAspTyrPhefletysLeuSerProProMetLeu 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901 CGAGGTCAGAACAGGAGTGCACGGATAGCAAAACAACTTAGAAATGATAGAAATTTATT 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 262 AshPhelleProPheMetAshSerLenGlyLenVallhrSerAshClyLenProCluVal 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        322 ArqfhrfroArghysScrAsnLeuAspGlnGlnValAsnVallTeProProHisthrPro-441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               422 ArqValMetGluSerMetLeuLysSerGluGluGluArqLeuSer1[+GluAsnPheSer 44]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       442 LysteuteuAsnAspAsnilePheHisMetSerteuLeuAlaCysAlatenGlnValVal 461
481 ITCACITITACIGAGCIACAGAAAAACAIAGAAAICAGIGCAIAAA;;CCLLIAACTIA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                       Q
C
                                                                                                                                             q
                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                             3
                                                                                                                                                                                                                                                                                                                                                                                                                                              님
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                    ò
                                                                                                              ŝ
                                                                                                                                                                                    ें
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                       90
                                                                                                                                                                                                                                                                                                                                                                                                          :--
:--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ੋਂ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ं
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
```

### Processor   Pr	deutletys 54 CTTATTAAA 18 CTTATTAAA 18 CTTATTAAA 18 CTTATTAAA 19 CTTATTAAA 19 SEEPFOLYS 58 HILLHIH	######################################	Tyrcluled 66	CCTCATGCT  CLICVAL  MITAINSTA  Alaserthr  FILLIBIT  Approver	TTCCTACT 25 TTCTTITI   1 TTCCTACT 25 TTTTITI   1 CATATAA 25 COUVAISOT 80 TITITI   1 TAGTATCA 26 TAGTAT
	Tpl.cuScrAspScrProleuPheA 1911111111111111111111111111111111111	ASIS CETT THE THE THE THE THE THE THE THE THE	Thricoglassing		ALTHITITION CGAACCCTTACA CCAACCCCTGAAGA PROATGSCTATGI TCACCCCTGAAGA PROATGSCTATGI CCAAGATCAACAA LYSIICASDGIDM LYSIICASDGIDM LYSIICASDGIDM AAAATAAATCACA
	### ##################################	SLYSGLYSOCTHOLINIA AAAAGGTTCAACTACG QUBOCHOCHOLINIA HILLOCAGACGAGAAA CACACGAAAAAAAAAAAAAAAAAAAAA		Adda Haran Charles Haran Gaa Aada Haran Charles Haran Char	46.1 AGGCOCCIACCOCTACCAALACTICATATELETICAL AGGCOCCIACCIACCACAALACTICACAALACTICACAALACTICACAALACTICACAALACTICACAALACTICACAALACTICACAALACTICACAALACTICACAATAATCAATAATCAATAATAATAATAATAATAATAA
462 1621 482 (681) 502		N N N	6.4.2 216.1 6.6.2 22.2.1 6.8.2	7.281 7.241 7.22 7.22 7.2401	2461 2621 2621 2681 802 2681
5 8 5 8 5 1	: 5 1 5 1 5 1	5 1 5 1 5 1	8 8 8 8	f f f f f	: 9 5 5 5 5 6 5 6

```
SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NATE: Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
FILING LARE: 19-May-1999 CLASSIFICATION: <URKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: TOWNSEND and CREW LLP
                                                                                                                                                                                                                                                                                                                                                                                          Gregory, Richard J.
Wils, Keneth N.
TITLE OF INVENTION. Tissue Specific Expression of Retinoblastems Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    844
                                                                                                                                                                                                                                    2881 AAAATGAATGATAGGIGSALACCICAAACAAAGAAAA 2922
                                                                                                                                                                                                                  882 LysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET, Two Embarcadero Center, 8th Floor
CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FIFTSTNOPZAGENT NUMBER (153%) 001020
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         118-00-026-459A-29 (1-895) v US-09-315-113-3 (1 2994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPEKATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 08/801,092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear
MOLECULE TYPE: CONA
SEQUENCE DESCRIPTION: SEQ ID NO: 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE. COLKEGARS
ATTORNEY-AGENT INPORMATION:
NAME: Fitts, renec A.
REGISTRATION NUMBER: 35,136
                                                                                                                                                                                                                                                                                                                   Sequence 3, Application US/09315113 Patch: No. 6379927 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ERNOTH: 2994 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Antelman, Douglas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 703-576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ 1D NO: 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 94111
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4609.00
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.00%
99.89%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                       US-09-315-113-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US 09-315-113-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No.:
                                                                                                                                                                                                                                                                                    RESULT 4
                                                                                                          q
                                                                                                                                                                             dC
dc
                                                                                                                                                                                                                ò
```

25 E	24.1	rodinaspteuproteuvalarqteuchubbedludinibrolughu 2 	
S 1	7.7 [0]	'sLeatysTleProAspHisValArgGluArgAla 4 	
5 3	4.2	'45,98V     Ser Ser  - - - - - - - - - - - - - - - - - - -	
5 3	421	MaalavalAsplouaspChuMotSor 8 	
S ±	481	Phythrephytheratalogysasottedtatteservatilistyspherheasotten 101 	
5 3	102	LeuLysLys 1	
45 25	122	19raspVallcubhcAlalcupheSeriyslcuGluarqfbrCysGlutcullefyrlcu 141 	
§ £	14.2	LysValSer 1	
S 3	162	JeuslametsluaspaspteuVallle   	
5 3	182	ValledAspiyrPhellebysLeuSerfroProMetLeu 20 HILLILLILLIHHHHHHHHHHHHHHHH GEGITGACIAIIITAIIAAACICICACIGCAIGITG 84	
\$ \$	202	DeasodlyserProArqThrProArq 22 	
5 3	522	AlaarqilealatysGlubeuGlubsnaspThrarqileile 2 	
5 ±	242	LeucystyscludisclucysasuticaspcluvallysasuvaltyrPhetys 2 	0
5 £	262	PheMer Asuser Leugly LeuVal Thr SerAsudly LeuProslu Val   2	0
5 É	*	nAsstausertysargtyrdlydlatteteresgaantysaagteuaspalaarg 3 	0
5 3	ν	HISASPLYSTELLOUGHEITERASPSCETTCASPSCEPEGETUTETTETT CALGATANAACTGTTCAGAGGTTTTTTTTTTTTTTTTTTTTTT	c
5 4	1201	THEFEOARGLYSSOFASELEONASPRINGTONATASENVATTTEPFOR OF THEFT THE T THE T THE THEFT THE THEFT THEFT THE THE THE THE THE THE THE THE THE TH	0
5 g	142	ValarqThrValMetAsnThrIleGluGLnLeuMetMet.IleLeuAsnSerAlaSerAsp 3 	0
\ \ \	7.98	ObstrokershaAsnizarbeSeriyr?beAsnAsnOysPhrValAsnProbysGluSer	

```
1441 GGACAGGTIGIGIGGAAAIIGGAACAGGGAIACAAACITGGAGIFGGTIGGCTIGIATTAC 1500
                                                                                                                                                                                                                                                                                                                                                                 861 CAATGAAAGGAGGAGAAGGACGAAGGGTOAGGTTGAATGTGCTTGTCTTTAATGTT 1920
                                                                                                                                                                                                                                                                                                                                                                                               422 ArqValMetGluSerMetLeuLysSerGluGluGluArgLeuGer FleithAshPheSer 441
                                                                                                                                               442 LysLeuLeuAsnAspAsm1)ePheHisMetSerfamHamAlacysAlaLeuAlavalVal 461
                                                                                                                                                                                                                                                                                                                                              MetAlaThrTyrSerAraSerThrSerGlhAsnLouAspSerGlyThrAspLouSerPho 481
                                                                                                                                                                                                                                                                  502 PhelleLysAlaGluGlyAsnLeuThrArqCluMetIleLysHisLeutluArq'ysGlu 521
                                                                                                                                                                                                                                                                                                                                                                                                                           582 tystysGlyScrThrThrArgValAsnScrThrAtaAsnAladluthrdthAlathrScr_601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  602 AlaPheGInThrGInLySProLeuLysSerThrSerTcuSerTcaPheTyrLysLysVal 621
                                                                                                                                                                                                                                                                                                        522 HisArdlleMetGluSerl@uAlaTrpLeuSerAspSerProlzuPWAspLeulleLys
                                                                                                                                                                                                                                                                                                                                                                                     562 ProLeuGlnAsuAsuHisThrAlaAlaAspMetTyrtouserProValAraSerProLys
                                                                 402 GTyCLhCTyCysValCfatTeCtySerClaArqTyrtyssla actyVatArqta uTyrTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     662 MetArgAspArgHistouAspGln1leMetMet@ysSerMetTyrGiyllo@ystysVal
                                                                            .;
10p
                                                                                                                                                                                                                        ò.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>2</u>
                                              3
                                                                                   90
                                                                                                                         3
                                                                                                                                              ŝ
                                                                                                                                                                  Q
                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                       ^{\circ}
                                                                                                                                                                                                                                                                                                                         ä
                                                                                                                                                                                                                                                                                                                                             ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                           {}_{\Sigma}^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                              đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                  ŝ
                                                                                                          ŝ
                                                                                                                                                                                      ŝ
```

```
2401 ITCIATAACTCGGGTCTTCAFGCAGAGAAAAAAAAAATATTTGGAGTATGCTTCCAGC 2460
                                                                                                                                                                                                                                                                                                                                                            258. ATTERASAAGGTOTGOGAAGAAGAAAAATAACTOGAAGATGAAAATOAAAATATATGA 2640
                                                                                                                                                                                                                                                                                                                                            *12 ..ouArd/heAspileCluGlySerAspCluAlaAspClySerLysHisLeuProGlyGlu 861
                                                                                                                                                      782 HoSetCluGlyLeaProThrDroThrLysMetThrProArgSetArglleLeaValSet 801
                                                                                                                                                                                                                802 TestyoluserPhedlyThrSerClutysPhedInLysTleAsnClnMctValCysAsn 821
                                                                                                                                                                     Recombinant Adenoviral Vector and
Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     882 LysMetAsnAspSerMetAspThrSerAsnLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patentin Release #1 0, Version #1,25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C611 100 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 08/142,669
FILING DATE: 25-001-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: USZÓRZ959 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US/08/328,673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 087244,777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Campbell and Flores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 7. Application ngznagsakaa
Patest No. 5932210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gregory, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Campbell, Cathryn A.
ATION NUMBER: 31,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Maneval, Daniel C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 19 MAY-1994
PKI & APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PHITZAGITHI INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE TWORFT NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wills, Kon N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIER READABLE FORM:
MEDIUM IYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SECUPINCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Calitornia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       San Diego
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TASSIFICATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15 08 959-648-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CONTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S. T. LWAKE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIREEI:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 5
                                                           Ē
                                                                                                                                                      ŝ
```

```
481 IICACITITACIGAGCIACAGAAAAAAAAAAAAAGAAAAAGAAAATCTTTAACITA 940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   102 LouiysGluffeAspThrSerThrLysValAspAshAlaMetSerArgLeuLeufysLys 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                122 TyrAspValLeuPheAlaLeuPheSerLysLeuGluArqThrCysGluLeuIleTyrLeu 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             142 ThrGlnProSerSerSerIleSerThrGlulleAsnSerAlaLeuValLeuLysValSer 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721 FGGATCAGAFFFTTAFFTAGGTAAAGGGGGAAGTATFAGAAATGGAAGATGATGTGGTGAFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             202 Townysolumonyr/ystbralaValidebreileAsuclySerbroArqtbrbroArq 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  222 ArgelycinAssArgScrAlaArgileAlatysSlsic...SluAssAspTh Argilette 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      047 CluValimun, aly allufiadial, adapticAspelioValitysPerfector 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           £2 LystysGluLeuTrpGlyileCysIlePheIleAlaAlaValAspLeuAspGluMetSer 81
                                                                                                                                                                                                                   #F.8
                                                                                                                                                                                                                              Conservative:
                                                                                                                                                                                                                                                                                                  US-09-026-459A-29 (1-895) x US-08-959-638-7 (1-2995)
                                                                                                                                                                                                                                              Mismatches:
                                                                                                                                                                                                             Matches:
                                                                                                                                                                                                                                                          Indels:
                                                                                                                                                                                                                                                                         Gaps:
TELECOMMUNICATION INFORMATION:
        TELEPHONE: (619) 535-9001
IndiceAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 7:
                                                SEQUENCE CHARACTERISTICS:
LENGIH: 2995 base pairs
                                                                                                                                                                                                                   4609.00
                                                                                                                                                                                                                              100.00%
                                                                                                                                                                                                                                                          868.66
                                                                            TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                               139...2922
                                                                                                          linear
                                                                                                                                                                                                                                             Best Loval Similarity.
                                                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                        Aliqument Scores:
                                                                                                        TOPOLOGY:
                                                                                                                                  NAME/KEY:
                                                                                                                                               LOCATION:
                                                                                                                                                           7-88-926-838-7
                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                          Query Match:
                                                                                                                                                                                                    Pred. No.:
                                                                                                                                                                                                                   Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QQ .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90
                                                                                                                                                                                                                                                                                                                                                                                                         금
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      걾
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ĝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>ج</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
```

_	56.1	OANTICE COTABAGAACAGAAGTAATATAATAGAGGGGAAAAATGITTITITITITI	1020
16	26.2	Ashebetteprochemetashsertendigtzenvalthrserashgeuprogluval 	281 1080
19 5	282	OLUASHLOUSCH YSAUGLYPILOHULCHYTEOLYSASHLYSASHLYSASHLYBAAGA AAAA GAAAATTTELHILHHILHHILHHILHHILHHILHHILHHILHHILHHI	301 1140
:~ .2	10.2	TourbelouaspHisasptysThricuGInibraspsorficaspsorficaspsorfic.  11111111111111111111111111111111111	321 1200
ts 2	122	ArqthrProarqtysSerAsule-waspGluGluValasuValTleProProHisThrPro    -  -  -  -  -  -  -  -  -  -  -  -	341 1260
:s 2	14.2	ValarqlbrValMetasnibrileginGinLedmetHelequasnseralaserasp 	361 1320
:- 3	142]	CIRPLOSE COLUAS DIACHTES OF LYTP POSABAS DE YSTAT VATAS RAPPOLYS CIUSE PETETTETTETTETTETTETTETTETTETTETTETTETTE	381 1380
18 25	181	The tautys ArctVallys Asptleed by Tyrile Phelys Glubys Phealarys AlaVallinininininininininininininininininini	401
14 .5	402	01ydladiyyalatididicdiyserdibaratyrtystaudiyyalarqlautyrtyr 	421 1500
> .5	422	ArqValMetGtuserMetLeutysserGluGludluardLeuserHeGluasuBheser 11111111111111111111111111111111111	441 1560
54	442	LystentenasiaspasittethethisMetsertentenatacysalatendinValVal 	461 1620
Se 5	46.2	Mot Alathriyi Serar deserthi Ser Ginasin Leuaspser G. yibi aspirouser Photini IIIIII IIIIIIIIIIIIIIIIIIIIIIIIIIII	481 1680
54 .5	482	Profite LetenAshVallenAshLeutysAlaPheAspPhePyrlysVallleGluSer 	501 1740
54 JA	5.02	PhethetysaladiodlyasnteuthrargdiometiletysHisteadluargdysGlu FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	521 1800
S	5.2.2	HISATGI FOMOTOLUSOLLOUALA FEDLOUSOLAS PSOLPEOLOUP GASPLOULLELYS	541 1860
× =	542	942. CHRISCLESSASFANDELUCLYN OTBERASPHISLEUCHGEGER JACKSFROLGURSOLLEU. 561 FELLELLE FELLELE FELLELLE FELLELLE FELLE FEL BELLEAANDE FELLE FEL	561 1920
S 2	562	ProbanGinashashilisthraladaappmettyrtauserbrovalarqserProfysiolifitetiiliitiiiiiiiiiiiiiiiiiiiiiiiiiii	581 ` 1980
I	5.82 1981	1.yst.ysci.ysci.tbritbrargvalasiiscritbralaasinalacliutbrGinalarbrscriiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	601 20 <b>4</b> 0
5-	7.03	Alarhed bilitation ysprotautys Serthis Sertraus Crisaus yn yssystyllys Bystallau yn benyn ys Bystyllys Bys	621

```
HELLELLE HELLELLE HELLE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2341 GITCAGGAGACATICAAACGIGIIIIGAAFCAAAAAAAAAATAIGATFCIAIIAIAGIA 2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2701 AGCGACCGTGTGTGTGAAAAGAAGTGCTGAAGGAAGCAACCTGCTAAAACCACTGAAAAAA 2760
2041 GCCTTCCAGACCCAGAAGCCATTGAAAECTACTTCTTTCACTCTTTTATAAAAAGTG Z100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     662 MetArqAspArqHisLeuAspGlnIleMetMetCysSerMetTyrGly;TerysLysVal 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   682 LysAsmileAspLeuLysPheLysTleTleValThrAlaTyrLysAspLeuProBisAla 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                702 ValcindiathrehetysArqValleutletysGludiathityrAspScrittetteVal 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            722 PheTyrAsnSerValPheMetGlnArqLeuLysThrAsnIleLeuGlnTyrAlaSerThr 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         742 ArgProProThrLeuSerProIleProMisIleProArgSerProTyttysPhoProSet 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           762 SerProLouArgileProClyClyAsmileTyrileSerProLouDysSerProfyilys 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                822 SerAspArgValLeuLysArqSetAlaGluGlyserAsnProProLysProLeuLysLys 841
                                                                                622 TyrArqLeuAlaTyrLeuArqLeuAsnThrleuCysGluArqLeuLeuSerGluHisPro 641
                                                                                                                                                                                                                                     642 ClubeaclasistlettetrpfhræurhedinHisthitæmlinAsndintyrdluten 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            782 IleserGluGlyLeuProThrProThrLysMetThrProArgSerAralleLauValSer 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          842 LeuArgPheAsplleGluslySerAspsluAlaAspSlySerLysBlsLeupraClyGlu #61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           862 SerLysPheGlnGlnLysLeuAlaGluMetThrSerThrAraMetGlnLysGln 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application PC/HES9410357
GENERAL INFORMATION:
APPLICANT: The Resents of the University of California
APPLICANT: and Canji, Inc.
TITLE OF INVENTION: Therapeutic Use of the Retinoblastoma
HILLE OF INVENTION: Suscreptibility Gene Product
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2881 AAAATGAATGATAGCATGGATACCTCAAAGAAGAAGAAA 2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                882 LysMetAsnAspSerMetAspThrserAshLysGluGluLys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Campbell and Flores
4370 La Jolla Village Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: San Diego
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PC1 - US94 - 10357 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE:
    3
                                                                                                                                                                                                                                                                                                                 G.
                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                 Ś
```

```
481 ITCACTITIACTGAGGTACAGAAAAACATAGAAATCAGTGTCCATAAATTCTTTAACTTA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (1) COTGATITIACIGOATIATGECAGAAATTAAAGATAACCAGATCATGECAGAGAGAGGT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   651 IGG11AAC1TGGGAGAAG1FTGAFGTGTGGAFGGAGTTTGGGAGGTTAFTAFTCAAAAG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #2 Phothrehe PhrGluteuGlutysAsnileGlutleSerValHistysPhePhcAsni.eu 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       102 LeutyschulleAspThrSerThrLysValAspAsnAlaMetSerArgLeuLeuLysLys 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 122 TyrAspValLenPheAlaLeuPheSerLysLeuGluArgThrCysGluLeuIleTyrLeu 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C.I. IAIGAIGIAITTIGTACTCTTCAGCAAATTGGAAAGGACACTGAACTTAIAIATTIG 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       112 ThrollmProSerSerSerTleSerThrCluffeAsnSerAlaLeuValLeuLysValSer 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661 ACACAMANCOMACACTOCATATOTACTACAAATAAATTOTGCATTGGGATTGGTAAAAGTTTGT 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InplewIhrIrp@luLysValSerSorValAcpGlyValLewGlyGlyTyrIle@lnLys 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ProAspPhothrAlaLeuCysClnLysLeuLysTleProAspHisValArgCluArgAla 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 StrAspSerGlyProGluAspLeuProLeuValArgLeuGluPheGluGluThrGluGlu 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62 Lystys Notesirs 61, ilectronalization in the Leading of Leading of the Leading of the Land of the L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18 119 1126-459A-29 (1-895) x PCT-US94-10357-1 (1-2994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ength:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      etit on aa jaadwiis siddaaa aaseestaaa
                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Ve
THREST APPLICATION DATA.
APPLICATION NUMBER: PCI/US94/10357
PTILING DATE: 13-SEP-1994
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 08/121,108
                                                                                          CHARTING SYSTEM: PC-DOS/MS-PMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cathryn A.
HER: 31,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECTIMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | TELEPHONE: (619) 535-9001 | TELEFAX: (619) 535-8949 | INF EMALION POR SEQ. (D. NO. 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 13-SFP-1994
                                                            Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100,00%
99,89%
99,83%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH: 2994 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4606.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SPUCENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRALLON NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIKANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                      FIR APPLICATION DATA:
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DACALIUN: 139. 2923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hest Laral Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Campbel
                                                       MEDIUM LYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 To Polici GY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Aliqument Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P*T-US94-10357-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F.A.LURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Prod. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ė
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
```

```
1081 GAAAAWGTTTGTAAAGGATAGGAAGAAATTTATGTTAAAAATAAAGATGTAGAIGCAAGA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321 CAACCTICAGAAAATCIGATTICCTATTITAAGAAGIGGACAGIGAAIGCAAAAGAAAGI 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1561 AAACTTCTGAATGACAACATTTTTCATATGTCTTTAT IGGCGTGGGGTCTTGAGGTIGTA 1520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1741 TEFFATGAAAGGAAAGGGAAGTFGAGAAAAAAGATGATAAAAGATTTAGAAGGATGTGAA TROS
                                                                                                                                                                                                                                                                                     242 31gVa11.cuCystysCluHis 21uCysAscii.cAspCluVa1tysAsnVa1tyrPhCtys 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           382 : leteulysArtValtysAspileSiyTyrllePteLysSiatysPhcAlatysAlaVal 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             442 LysiculcuAsnAspAsnilePheHisMetSericulcuAlaCysAlaLcuCluValVal 461
                                                                                                                                                                                                                                                                                                                                                                                                                                       262 AsnihetlerronheMetAsnSert.euGlyLeuVallhrSerAsnGlyLeuDrodluVal 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 302 AcuPheLeuAspHisAsphysThrLeuGlaThrAspSerlleAspSerPheGluThrGla 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      322 ArgübreroArglgsSerAsnLeaAspClaCluValAsaValIJeProFroHisThrero 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        342 ValArgThrValMetAsnThrIleGlnGlnLeuMetMetIleLeuAsnSerAlaSerAsp 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    402 GlyGlnGlyCysValSlufleGlySerGlnAraTyrLysLeuGlyValAraLeuTyrTyr 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         422 ArgValMetGluSerMetLudiysSerfGluGluGludryLeuSerfleGluAsnPheser 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         482 ProfrpHeliouAsnValLeuAsnLeutysAlaPheAspPheTyvLysValHeGInger 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            502 PhelloLysAlaCluClyAsnLeuThrArgGluMetlleLysHisLeuCluArgCysCln 521
162 TrpllcThrFkaLeuLeuAlaLysGlySlaValleuGloMetGluAspAspLeuVallle 181
                    SerPhe9InLcuMetLcuCysValLcuAspTyrPhe11cLysLcuScrProProMetLco 201
                                                                                                                                                                                                522 HisArgileMetGluserLeuAlaTrpLeuSerAspSerProLeuPheAspLeuIleLys 541
                                                                                                                             781 ICATTICAGIIAAIGCIAIGIGIGUIIGACIAIIIIAIIAAACICICACCICCCAIGTIS 840
                                                                                                                                                                         202 LeutysClubroTyrtysThrAlaVallleProlleAsnGlySerProArgThrDAty (22)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            222 ArgSlyGlnAsaArgSerAlaArgIleAlaLySClaLeGSluAsaAspThrArgIleIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        362 GlnProSerGluAsnLeulleSerTyrPheAsnAsnCysThrValAsnProLysGluSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
B.
                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                    ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

Tue Jan 21 10:02:39 2003

2881 AAAATGAATGATAGCATGGATACCTGAAAGAAGGAAGAAA 2922

```
76.2 SetProlænargi leProllydlydlyasni lefyri leSetProlæniysSetProlyriys 781
Etti tilli lilli 25.21 TeAcheri Fadda liceli dGadd GaacatetAtafriteacece i Gaacateraaa 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HILLETTILLETTILLETTER FILLETTILLETTILLETTILLETTILLETTILLETTILLETTILLETTILLETTILLETTILLET
                                                                                                                                                             2041 GPCELPCAGACCAGAAQCCALIGAAATCTAGCTCTTTCACTGTFTTATAAAAAAGTG 2100
                                                                                                                                                                                                                                                                                                                                                                                                           ZZBL AAGAATATAGATITAAATICAAAATGATTGTAAGAGGATACAAGGATGTTGGTGATGGT 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2221 ATGAGAGAMAMATTTMAAATTATGATGTGTTCGATGTATGATATGGAAAGTG 2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2761 CLACOCITICATATICAAOSTCAGAIGAAGCAGATGGAACTAAACATCICCCAGGAGAG 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2821 TCCAAATTTCAGCAGAAAACTGGCAGAAATGACTTCTACTCGAACACGAA1GCAAAAGGAG 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        842 LeatroPtoAspileGludtySerAspiluAlaAspilySerLysHisLeaProGlyGlu 861 [[[[[[[]]]]]]]]
                                                            542 GlusortysAspArqdladlyProThrAspHisLoadluserAladysproLeuAsnLeu 551
                                                                                                                                          56.2 ProteindlinAsinAsinHisThiAlaAlaAspMetTyrLeuSerProValArgSerProLys 581
                                                                                                                                                                                                                                                                                                                                                                                        622 TyrArdbanAlafyrLonArdbanAsnThrLonCysGluArgbanbanSerGluHisPro 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        642 CluteuGluHisileHelrplbrLeupheGlnHisihrLeuGlnAshGluIyrGluLeu 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          722 FleeTyrAsuSerValPheMetGinArgLeuLysThrAsnIleLeuGinTyrAlaSerThr 741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     742 ArgProProthrLeuSerProffeProHisfleProArgSerProfyrLysPheProSer 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     802 | HeelydlaSerPhedigibuserGlutgsPhedintysHeasm31nMetValcysAsn | 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        822 Set AspataValleed ysArdSet AlaGluGlySet AspProProllySProLenGySLys (84)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        862 SertgsPhedludinLgsLeuAladiuMetThrSerThrArgThrArgMetGlnLysGln 881
                                                                                                                                                                                                                          582 1781786178611ht thratqVatAsnSerthrAtaAsnAlaGluthrGluAlathrSer 601
                                                                                                                                                                                                                                                                                                          602 AlibbethathroladysProteidysSerThrSerLeuSerLeuHeTyrLysLysVal 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        662 MetArqAspArqHisLeuAspGluIleMetMetCysSerMetTyrGlyIleCysLysVal 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     782 [leSerGlus]yLeuProThrProThrLysMetThrProArgSerArg1]eLeuValSer 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         882 LysMetAsnAspSerMetAspThrSerAshLysG1uG1uJys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                               ã
                                                                                                                                                                                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      تِ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                            20
                                                                                                                                                                                                                                                      -
                                                                                                                                                                                                                                                                                                          (S)
                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \frac{1}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \frac{5}{5}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :-:
```

```
2 GINASpSerGlyProGluAspLeuProLeuValArqLeuGluPheGluGluThrolluClu 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                              ADDRESSEE: Townsend and Townsend and Crew LLF
                                                                                                                                       Maneval, Daniel C.
TITLE OF INVENTION: Recombinant Adenoviral Vector
                                                                                                                                                                                                                                                                STREET, Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 016930-0009200S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: /product-"RB" /note-"retinoblastoma tumor suppressor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-026-459A-29 (1-895) x US-08-328-673A-7 (1-2995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/128,674A FILING DATE, 25 Gt 1994 CLASSIFICATION: <0nknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 08/233,669
FILING DATE: 26 APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 08/142,669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERALING SYSTEM: PC-1048/MS-D08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ 1D NO: 7:
                                                                                                                                                                                     Methods of Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Smith, Timothy S.
REGISTRATION NUMBER: 35,367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                    APPLICANI: Gregory, Richard J.
                                     Sequence 7, Application US/08328673A Patent No. 6210939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILLING DATE: 25-OCT 1994
                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 2995 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     139..2925
                                                                                                                                                                                                                                                                                        CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                        Wills, Ken N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                         STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4599.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96.898
99.678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           858165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: CONA
                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rest Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aliqument Scores:
                   -08-328-674A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-328-673A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No.:
RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
```

61 420 81 480	101 540 121 500	141 560 161 720	181 180 201 340	221 900 241 960	261 1020 281 1080	301 1140 321 1200	341 1260 361 1320	30 M C 4
Ppteuthritp@intysValSerSerValAspCtyValLeuGlyCtyYrtleGlntys HTTHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	Phyth:Pheth:GluLeuGlnLysAsnIleGluIleSerValHisTysPhePheasnLeulinthillithi	1974   1974	IPPILET Broken Genalalysolycliuval Leucliuwet Gluaspaspieuvaliile	Leubyscheprotytelsthralavalliebrolleasnglyserbroargthrbroarg of the Hillillillillillillillillillillillillill	CHARLOUCYSTYSCHURISCHUCYSASHIRASPCHUVALLYSASHVALLYPROLYSCHURISCHURITHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	Clads::LcuScrt.ysArq*yrCluClut.C**yrLcut.ysAsht.ysAsplcuAspAlaArg	ArdihrProArdLysSerAshLehaspSluGluValAshVallleProProHisThrPro- 	The prosection and the secrety present and prosection the second
4. 46. 62.	78 TO 1	12.	16.2 11.2 11.8 7.8	202 222 1 1	14. 14. 18. 18.	282 1081 102 1141	12.0   12.0     44.1   12.6	46.2 [42] (82]
5 d 5 d	호 중 항 <u>중</u>	5 5 7 9	학 중 중 중	5 ± 5 ±	0 f 8 f	3 8 5 8	१९ १ ई	한 <u>분</u> 호 분

1441 GGACAGGGTTGTGTCGAAATIGGATCACGGAIACAAACITGGAGTTCGCITGTAITAC 1500 1621 ATGCCCACATATAGCAGAAGTACATCTCAGAATCTTGATTCTGGAACAGATTTGTCTTTC 1580 1741 TITATCAAAGCAGAAGGAACTTGACAAGAAATGATAAAAACAITTAGAACGATGIGAA 1800 1801 CATCGAATCATGGAATCCCTTGCAIGGCTCTCAGATTCACCTTTATTTGATCTIALIAAA 1850 2281 ANGAATATAGACCTTAAATTCAAAATCATTGTAACAGCATACAAGGATCTTCCTCATGCT 2340 502 FhelleLysAlaGladlyAshLeuThrArqsluMetINeLysHisLeuGluAraYysGlu 521 462 MetalambrigiserangserThiserClaasnikaaspSerClyThiAspikuSerPhe 481 542 GIDSerLysAspArqGluGlyProThrAspHisLeuGluSerAlaCysProLeuAsnLeu 561 602 AlaPheGlnThrGlnLysProLeuLysSerThrSerLeuSerLeuPheTyrLysLysVal 621 622 TyrArgLeuAlaTyrLeuArgLeuAssThrLeuCysGluArgLeuLeuSerGluHisPro 641 642 GlukeuGluHisilelleTrpThrLeuPheGlnHisThrLeuGlnAsnGluIyrGlukou 661 482 ProTrpileLouAsnValLeuAsnLeuLysAlaFheAspFheTyrLysVallleGluser 682 LysAsnileAspLeuLysPbeLys1leIleValThrAlaTyrLysAspLeuProHisAla 522 #fsArgileMetCluSerLegAlaTrpLegSerAopSerProLegBlaAsplacifs 582 LystysGlySerThrThrArgValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSer 1981 AAAAAAGGIICAACIACGGGGGTGIAAAIICIACIGCAAAIGGAGAGAGAAAAACTAA 702 ValGlnGluThrPhetysArgValLeulletysGluGluGluTyrAspSerfletTeVal 2341 GTTCAGGAGACATTCAAAOGTGTTTTGATCAAAGAAGGGGGGGTATGATGTATATAGTA 722 PheTyrAssSerValPheMetGlnArqLeuLysThrAsnileLeuGlnTyrAlaSerThr 442 LysLeuLeuAsnAspAsmIleFheHisMetSerLeuLeuAluCysAlaLeuGluValVal :~ O 9 햠 qq G g Dp. q Q D qq 3 9. δ ã 0.7 ô qq ò ŏ ŝ ŝ

762 SerProLeuArgileProGlyGlyAsnileTyrileSerProLeuLysSerProTyrtys

```
APPLICANT: Xu, Hong Ji
APPLICANT: Hu, Shi Xuo
APPLICANT: HOndort, William F.
FITLE OF INVENTION: Broad Spectrum Tumor Suppressor Genes, Gene Products and
TITLE OF INVENTION: Methods for Fumor Suppressor Gene Therapy.
                                                                                                                                                                                                               2641 AFFIGHCAAFFORDSGATHFIGAGAGHFIGCAGAAAFTAAAFCAGAFGGFAFFAAFEAAFF
2521 TCPCCTTANSGALTCCTGGASGAACAICHTHHHHHHHHHHHHHHHHHHHH
                                                                                           2261 CTASGCLITGATATTGAAGGATGAGATGAAGCNGATGGAAGTAAAAGATGTGCCAGGAGAG 2826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZBZI TYYAAATTIYAGYAYAAACTGYYAGAATGACTTCTACTGGAAYGGAATGYAAAAGCAG 2880
                                                                                                                                                                                                                                                                                                                                                          842 JanataPleaspilledinGlySeraspélbalaaspélyseriysHistonProGlyClu 841
                                                                    782 HeserdladlytenProthrProthrtysMetThrProArgSerArgHetenValSer 801
                                                                                                                                                               802 HedlyGluSerPheGlyThrSerGluLySPheGluLysHeAsuGlnMetValCysAsp 821
                                                                                                                                                                                                                                                          822 SerAspArqValLeuLysArqSerAlaGluGlySerAsaProProLysProLeuLysLys 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                        862 SerlysPhedinGlulysLeuAlaGluMeUThrSerThrArgThrArgMetGlnLysGln 881
                                                                                                                                                                                                                                                                                                                                                                                      BBZ LysMet AssAspSerMet AspThrSerAsuLysOlgClutye R95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Fatentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DRENT APPLICATION DATA:
APPLICATION NUMBER: USCHOOL FEELING DATE: 19930325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O'COMPUTER TRANSPORTAGE TO THE STATE DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application USZO8038760
Patent No. 5496731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NE: (212) 790 9090
: (212) 869 9741/8864
66141 PENNIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POSTSTRALTON NUMBER: 28,462
PEFERENCEZOOCKET NUMBER: 740.
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMALION FOR SEQ. ID NOT. 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALTORNEY/AGENT INFORMATION:
NAME: Polssant, Brian M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : 4242 base pairs
NUCLEIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTERS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANLEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \Pi_+ S_+ A_-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10036, 2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: ODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM LYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Testion (Yes)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          UB 0.18 74.0 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                U.S. 418 0.58 75.0 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                I ELEX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
```

```
96. Histystherbeastleadealysolatteaspib.ca.chriysvataspasnatamet 115. HTHTPHTHTHTHTHTHTHTHTHTHTHTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         236 ASOASPTHEARGILETTEGLUVATLEGLUSSLYSGLUBISGLUCYSASHITEASFELUVAL 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256 LysAanValTyrFheLysAsuBhelleFroFheMetAsuSerLeadtyLe.ValThrSer 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   116 SerArqLeuLeuLysLysTyrAspValLeuPheAlaLeuPheSerLysLeuGluArgThr 135
                                                                                                                                                                                                                                                                                                                                                  136 CysGlubealleTyrLeaThrGlaProSerSerSerIleSerThrGlu1eAsnSerAla 155
                                                                                                                                                                                                                                                                                                                                                                                                                            156 LeuValLeuLysValSerTrpTfeThrPheteuLeuAlatysGlyGluValLeuGluMet 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   176 GluAspAspLeuValIleSerPheGlnLeuMetLeuCysValLeuAspTyrPheIleLys 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       216 SerproArgThrProArgArgClyClnAshArgSerAlaArg11eAlaLysGlnLvaGlu 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25. ASECTY of CALAMAN AND ASSOCIATION OF CONTROL 1995. HER PRODUCTION OF CONTROL 1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         316 AspSerPheGluThrGlnArqThrProArglysSerAsuleuAspGluGluValAsuVal 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        336 ileproprofischeprovatArqthrvaimerAsuthrileginglideumermerile 355
                                                                                                                                                                                                                                                                                            67 CATANATICIIIIAACIIAALIAAAAAAAAIIGAIACCAGIIACCAAAGITGATAATGCTATG 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       547 AAAAAIGITIAITICAAAAATITIAATACCITITIAIGAATICICITGGACITGIAACATCT 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   607 AATGGACTTCCAGAGGTTGAAAATCTTTCTAAACGAFACGAAAAATTTATCTTAAAAAT 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      296 LysAspLeuAspAluArdLeuPheLeuAspHisAspLysThrLeuKihThrAspSer11e 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              456 LeuAsnSerAlaSerAspGlnProSerGluAsnLeuIleSerTyrPhcAsnAsuCysThr 475
                                                                                                                                                                                                  76 AspLeuAspGluMetSerFheThrFheTh.GluLeuGluLysAsulleuluileSerVal
                                                    Conservative:
                                                                                                                                        US-09-026-459A 29 (1 895) x 92 98 938 760 1 (1 3232)
                                                                    Mismatches:
Indels:
               Length:
Matches:
                                                                                                           Gaps:
                                                    100.00%
                                 4213.00
                                                                    Best Local Similarity:
                                                    Percent Similarity:
Alignment Scores:
                                                                                       Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .a
...
                                                                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
```

```
967 AAATITGCIAAAAGTGTGGGACAAGGITGTGTGGAAATIGGATGGGATACAAGTT 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.47 IGGGCTGTTGAGGTTGTAATGGCCACATAIAGGAGAAGTACATCTCAGAATCTGATTCT 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAACASATIGITITITICOCCATGGATTCTGAATGTGCTTAATTIAAAAGCCTTGATTT 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1267 TACAAASIGAICGAAAGTEITTATCAAAGCAGAAGTCAACTTGACAAGGAAATGATAAAA 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 487 IIATITGAICTIATIAAACAAICAAAGGACCGAGAAGGACCAACTGATCACTIGAAFCT 1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1567 GAGACACAGAAGCTCGAGGTTCCAGAGGCAAAAGTGAAATCTACGACTGAAATGAAATGTACGTTGA 1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1807 FALGGCALAEGNAAAGEGAAGAATATAGACCETAAATTCAAAATCATTGTAACAGCATAC 1866
                                                                                                                                                                                                                                              1:27 GGN:TTGGGTTGTATTACCGAGTAAIGGAATCCATGGTTAAATCAGAAGAAGAAGAATAA 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200 [psp/soAlatycAlaVaPPPyGlnClyCysVaIGInIledlySerGlnAryTyrtysLeu 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    496 TyrLysVallleGluSorPholloLysAlaGluGlyAsuLeuThrArgGluMetlloLys 515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ese AlacysProLeuAsnLeuProLeuGlnAsnAsnHisThrAlaAlaAspMetTyrLeuSer 575
                                                                                                                                                                                     416 GiyValArgLenTyrTyyArgValMetGluSerMetLenLysSerGluGluGluArgLeu 435
                                                                                                                                                                                                                                                                                                          436 SerlietlnAsnPheSerLysLeuLeuAsnAspAsnIlePheHisMetSerLeuLeuAla 455
                                                                                                                                                                                                                                                                                                                                                                                                                            458 CysAlaLenGluValValMetAlaThrTyrSerArgSerThrSerGlnAsnLeuAspSer 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  474 OlyThrAsptenSerPheProTrpHeLeteuAsnValleuAsnLeutysAlaPheAspPhe 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       514 HisLeuGluArqCysGluHisArqIleMetGluSerLeuAlaTrpLeuSerAspSerPro 535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               576 ProValArdSerProLystysLysdlySerThrThrArdValAsnSerThrAlaAsnAla 595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  616 LeuPheTyrLystysValTyrAraLeuAlaTyrLeuArqLeuAsaThrLeuCycCluArg 635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6.06 LeaLeaSerGlaHisProGlaLeaGlaHisIleIleTrpThrLeaPheGlaHisThrLea 655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             838 StrAsnGinlyrGlubauMetArgAspArgHisLeuAspGlnIleMetMetCysSerMet 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          735 gradentioniovalibetyraspsovvalphementinargienrysphrasmile 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7.6. LeuchufyrAlaSerThrArgProProThrLeuSerProIleProHisileProArgSer 755
300 STOARTSCAAAAGAAAGTALACTGAAAAGACTGAAGGATATAGGATACATCTTTAAAGA 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               And TyralytlacystysVallysAsmTlaAsplouLysBholysIlatlaValThrAlaTyr 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SysAspleapproffisAlaValGlaciaThrPheLysArqValLouTlatysGlaciaCla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
```

```
Broad Sprettum Timor Suppressor Genes, Gene Products and
Methods for Tumor Suppressor Gene Therapy.
                        2167 TCAAGAATCTTAGTATCAATTGGTGAATCATTCGGGACTTCTGAGAAGTTCCAGAAAATA 2226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2347 AAACATOTOGGAGGAGGOGAATTICAGGAGAAGIGGGAGAAIGACIICIACICOA 2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2287 CCTAAACCACTGAAAAACTACGCTTTGATATTGAAGGATCAGATGAAGGAGALUGAAGL 2345
                                                                                        776 LeutysSerProTyrLysTleSerCluClyteaProThrProThrtysMetThrProAtq 795
                                                                                                                                                                            796 SerArgIleLeuValSerIleGlyGluSerPheGlyThrSerGluLySPheGlnLysIle 815
                                                                                                                                                                                                                                                                816 AshGlnMetValCysAshSerAspArgValLeuLysArgSerAlaGluGlySerAshPro 835
                                                                                                                                                                                                                                                                                                                                                    836 ProlystretentystystenargPboaspttedtagtyseraspstualaaspStyser 855
                                                                                                                                                                                                                                                                                                                                                                                                                                      856 LysHisLeuProdlyGluSerLysPhcGlnGlnLysLeuAlaGluMetThrSerThrArg 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          876 ThrangMetGlnLysGlnLysMetAsnAspSetMetAspThrSetAsnLysGluGluLys 895
756 ProTyrLysPheProSerSerProLeuArg]]eProClyGlyAss]]eTyrTleSerPro.
                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Pelease #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : Pennie & Edmonds
1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11S_/08_/03_B,760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                           Sequence 2, Application US/08038760
Patent No. 5496731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Benedict, William F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (212) 790-9090
TELEFAX: (212) 869 9741/8864
TELEX: 66641 PENIE
INFORMATION FOR SEQ IN NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESISTRATION NUMBER: 28,462
REFERENCE/TOOCKET NUMBER: 74(
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Poissant, Brian M
REGISTRATION NUMBER: 28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3232 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA: APPLICATION NUMBER 118,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ss: double
not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19930325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Xu, Hong-Ji
APPLICANT: Hu, Shi-Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEIC ACTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE.
COUNTRY: D.S.
10036-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D/T 092 800-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-038-760-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENCLH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
```

	55.75	820	0	5)	ن	ن
	Length:	Matches:	Conservative:	Mismatches:	Indels:	Gaps:
	=	4.21.4,000	100.00%	100.00	91.418	_
Alianment Scores:	Presidence November	250-400	Percent Similarity:	west Local Similarity:	Corry Match:	0.883

US 09 026 459A 29 (1 895) x US 08 038-760-2 (1-3232)

Z.	09-026	454A 29 (1 895) x US 08 038-760-2 (1-3232)
ζò	76	AspteuAsptinMetSerPhetBreheibreluteuGIntysAsmileGlutleSerVal 95
3	1240	GACCTAGATGAGATGTCGTTCACTTTTACTGAGCTACAGAAAAACATAGAAATGAGTGTC 3171
5 3	35.17	96. H18178Pherbreasnicellessiysolu Fraspitus Ser ThritysValaspasialamet. 115.   111.
-		TOTAL TOTAL TOTAL AND
5 3		Serfateniaerijystyjstytaspylatienpheataladenphesetysstendiaafathr 135 
5	1.46	C'ysolulen Hetyrlan throllabro Ser Ser Ser HeSer The Garling In HeAsis Ser Ala 155
3	015(0)	UTHTETHT THE THILL THE
	15.6	LeuvalteutysvalsertrptlerbreheteuteaAlatysötystuvalteusInmet 175
<u> </u>	0667	PROTECTIANA MATERIA CA PROTECTIAN PROTECTIAN AND PR
ŝ	176	chuAspAsptenVallleSorPheGlubeuMetLeuCysValLeuAspTyrPhelleLys 195
Ē	2340	GAGALGALGALLICALLICAGILAALGCIALGIGCCILGACIALTITATTAAA 2871
67		Leuser ProproMet Leuteut, ysGluptol yr Lysthr Alaval Hebrotte AsnGly 215
(1/)	2870	CTCTCA CTCCCATGTTGCTCAAASAACCATATAAAACASCTGTTATACCCATTAATGGT 2811
 	216	SerProArgibiProArgArgGlyGlnAsnArgSerAlaArgileAlaLysGlnLeuGlu 235
Ē	0187	ICACCITICAACACCAGGCGAGGICAGAACAGGAGTGCGAGGATAGGAAAAAAAAAA
Š	7.46	AsnAspThrArdIbeIluValLeuCysLysGluffisGluCysAsnIleAspGluVal 255
<u></u>	05.77	AATGATAGAGATTALIGAAGTICICIGTAAAGAAGATGAATGTAATATAGATGTG 2691
63	2,11,	LysAsinVallyrPhelysAsinPhelteProPheMetAsinSerTeurGlyLeuVallhrSer 275
â	06,97	AAAAATGITTATTICAAAAAFTTTATACCTTTTATGAATTCTCTGGACTIGTAACATCT 2631
5	271.	Asich proprodioval dinasnico Sectivisas g'yr Guglu Herytheurys asn. 295
3	26.30	AAT SIACT LOPAGAGG LIGAAAALG ET EQ LAAAGGALAGGAAAA HITALG LIAAAAA E 2571
Š	296	LysAsplæuAspAlaArqLeuPhelLeuAsplitsAsplysThrLeu3hrhrAspSet11e 315
35	2570	AAAGAESTAGATGSAAGATTATTTTTTGGATSAGAGAGTCTTCAGACTGATGTATA 2511
5	416	
Ē	2510	GACAGTITIGAAACACAGAGAACACCACGAAAAAGAAACCIIGAIGAAGAGAGGAATGIA 2451
5	3.46	Hebroprofisibi ProValArqibiValMetAsnibi HedinGinGuMetMetile 355
ŝ	2450	ALTERTOCOCACACACTOR ACCACTO LA TOCACACACTA TOCACACACTOR TOTAL C 3.9.)
5	45.6	LegAsuSerAlaSerAspAlh@ProSerCiluAsuLeg1  LeserTyrPheAsuAsuCysThr
Ē	7 1,10	LI AAALI CAOPAAGI GA I CAACCI I CAGAAA I CI CATTTI CCTATTI TAACAACTI CCACA - 2331
5	17.6	ValAsurroi-ys/lu/ser HoleenlysArgVallysAspHe219Tyr HeihelysGlu 395
ż	7 ( (1)	GEGAATOS AAAAGAAAGTATACTGAAAAGAGTGAAGGATATAGGATACATGTTAAAGAG 2271

```
Broad Spectrum Tumor Suppressor Genes, Gene Products and Methods for Lumor Suppressor Gene Therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            776 LeulysserProfyrLysileserGlaslyLeuProThrProThrLysMelThrProArg 795
                                                                                                                                                                                                                                                                                                                                                 746 SerAralleLeuValSerilledlydluSorPhodlyThrSerdluIySPhodlnIysIle 815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . HELLELLE HELLE H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         856 Evelifiel suprocifyelusserrysphedindintysteuAlagiuMetThrSerThrArg 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              876 thrandMetClntysGlidysMetAsidspSerMetAspThrSerAsnLysGluGlutys 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7409 025 999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/470,091
FILLING DATE: JUN-16-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1, Application US/08470091
Fateri No. 5912236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLITANIE Benedict, William F.
JITLE OF INVENTIONE Broad Spect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NE: (212) 790 9090
: (212) 869-9741/8864
.c.:41 PENNIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFIGENCY, DOCKET NUMBER: 740 FELS. MMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRALL IN NUMBER: 28,462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMALION FOR SECTION NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Asib Addolf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N DEC 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4242 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SECULNOE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      URFFERT APPLICATION DAILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: X1, Hong.J1
APPLICANT: Hu, Shi.Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MPHTER REALABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARRESPONDENCE ADDRESS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION SUMPER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TER OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NA
NA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: X1, Hor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11, S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1257012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YILY: NOW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MediaCulle TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADURESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOF IWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NEW TRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1-160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIREE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
```

```
67 CATAAATTCTTTAACTTACTTAGAAGAATIGAIACCAGIACCAAGCTGATAATGCTAG 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     116 SerArgLeuleulystysTyrAspValLeuPheAlaLeuPheScrI.ysLeuGluArgfhr 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       176 GluAspAspLouVallleSerPheGlnLeuMetLeuCysValLeuAspTyrPhelleLys 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            196 LouSerProProMetLeuLouLysGluProTyrLysThrAlaVallleProTleAsnGly 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              367 CTCTCACCTCCCATGTTGCTCAAAGAACCATAAAAACAGCTGTTATACCCATTAATGGT 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              216 SerProArgThrProArgArgGlyGlnAsnArgSerAlaArgfleAlaLysGlnLeuGln 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      336 HebrobroHisThrProValArgThrValMetAsnihrHedInGlnLeumetMetHe 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256 LysAsuValTyrPheLysAsaPhelleProFheMetAsuSerLeuGlyLeuValThrSer 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276 Ashdiy carrediuValdiaAsmicuScriysArgiyrCluStulleTyriculysAsm 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   607 AATGGACTTCCAGGGTTGAAAATCTTTCTAAACGATACGAAGAAATTTATCTTAAAAAT 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    316 AspserPhedluThrdluArgThrProArgLysSerAsnLeuAspGludluValAsnVal 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7 GACCTAGAGATGEGEGTTCACTTTTTACTGAGGTACAGAAAACATAGAAATCAGTGTC 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         156 TenValleniysValSerTrpTrpTeTbrbbioucuAlatysGlyGluValLeuGlnMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247 IIGGIGCTAAAAGITITCIIGGAICACATITIIAIIAGCIAAAGGGGAAGITAIIACAAAIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236 AshAspThrAngile:1e31uValleuCystysGlumisGluCysAshileAspOluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                      96 HistysPhePheAsnLeuLeuLysGlulleAspThrSerThrLysValAspAsnAlaMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       127 TCAAGACTGTTGAAGAAGTATGATGTTTGGAGTTGTTTGAGCAAATTGGAAAGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          136 CysGluLeulleTyrLeuThrGlnProSerSerSerIleSerThrGluIleAsnSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          487 AATGATACAAGAATTATTGAAGTTCTCTGTAAAGAACATGAATCTAATATAGATGAGGTG
                                                                                                                                                                                                                                                                                                                                                    76 AspLeuAspGluMetSerPheThrPheThrGluLeuGlnLysAsnIleGiuIleSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     820
                                                                                                                                                                           Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                     US-(04-024-484A-29 (1-898) v US-08-470-091-1 (1-3232)
                                                                                                                                                   Matches:
                                                                                                                                                                                                                           Indels:
                                                                                                                                                                                                100.00%
                                                                                                                                                                           100 001
                                                                                                                                                                                                      Best Local Similarity:
                                                                                                                                                                           Percent Similarity.
NAME/KEY:
                                                                                                 Aliqnment Scores:
                          LOCATION:
                                               US-08-470-091-1
                                                                                                                                                                                                                             Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>a</u>.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ÖΫ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ċ
```

<u>.</u>	н4.7	TFAAATTEAGAAGATEAFCAACTICAGAAAATEIGALITEETATTTAACAACTGGACA 9	੍ਰ
5 3	476	Valasoprotyschuserteroutysargvaltysasptledjytyrteepletyschu 3 	2 6
Š	4,16	Lysthian is yet a Valid by the Charles and the Charles of the Valid by	2 =
<u>a</u>	7.94	AAATHOLIAAAAYOO QAGAAAADOO CAAAATTOO AAAATAAAAAAAAAAAAAAAAAAAAAA	0
5 5	416	GLYVALArqueufyrTyrArqValMerGluserMetteutysserGluGluGluArgteu 4 	
5 3	4.46	Set : LectinAstiPhe-Set LystanticuAstiAspAstiLlePheHisMetSetLeublauAla 4	un -
3	45.4	CysAlaisudluValValMetAlaThrTyrserArgserThrserGhAshichthalibdocum	
45	1147	TOTOTP TOTAGGGTTCTAALOOPCACAFATAGCACAACTAGGATCTTCATTCT TOTAGATACTTCT TOTAGATACTTCT TOTAGATACTTCT TOTAGATACTTCT TOTAGATACTTCT TOTAGATACTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTC	N 2
를 속	1207	GGAACAGATTTGTCTTTGCCATGGAATGTGAATGTGCTGATTTAAAAGGCTTTGATTT 1 [913.98VallteGluserPhellelysAlaGluGlyAshi.euThratqGluMetllelys 5	.7.
£	1267		~
÷ 3	516	HISTALBILATOCYSCHUHISAFGILAMATGILASFELANATTDLAUSERASPSERFO 5 	. m
5 3	5.46 1.487	LeubheAsplentletysClinsertysAspArqGluGlyProThrAspHisteuGluSer 5 	- 10 <del>- 4</del>
∀	556	Alar ystrolouasiloutroloudinasnasniisthralaalaaspinet fyrlouser 5   H.E. F.	5 5
<u> 5</u>	57.6 15.07	78 ProvatarqSerFrotysLysLysGtySerThrThrArqValAsnSerThrAlaAsnAla 59 	- 5 W
₹ <u>€</u>	596	cluthrichalathr SetAlablechribrichi, ysbrolcollysSerfibrich in Hillith den caabaccaraacaren (a.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a.	e
\$ B	616	Leuthergrigstgsvallgrangtenalafgrieuargtenasmfhileutgsbluang 6 	<u> </u>
숙을	6.46. 16.87	LealeuserdiulisprodiuleudiulisilellelletrpThrLeupheGlulisThrLeu 6 	7.2
5 3	656	Gluasmiluiyriluicumotargasparglistovaspiluitomotmotoyssermet 6 	∠ ∞
5 4	1807	1970-1914 o'ystysvailysAsmileAspiculysPicitysTeilevaithrAlaiyr 6 	ു മ
35 A	636	LysAspteoProHisAlaValdIndloThrPhetysArqValLeutTetysGluGlu 7 	7.12
	716	127   ASPSET   1   CHANGE   127   128	~
ã	1.473	TATGALICIALIALAGIALICIALAAGICGGGIGITGAGGAGAGGAGGAGAAAAAAAAAAA	5

3.6

46

98

90

99

56

56

98

40

9

5,6

46

90

55

```
APPLICANT: X0, Hong-Ji
APPLICANT: Hu, Shi-Xue
APPLICANT: Hu, Shi-Xue
APPLICANT: Hu, Shi-Xue
TITLE OF INVENTION: Broad-Spectrum Fumor Suppressor General General Architectus and
TITLE OF INVENTION: Methods for Tumor Suppressor General Therapy.
                  2287 CCTAAACCACTGAAAAAACTACGCTTTGATATTGAAGGATGAAGATGAAGGTGAAGGT 2446
                                                                                                                                                                                                                                                                                                                                                                                                                                      2407 ACACGAATGCAAAAGCAGAAAATGAATGATAGCATGGATACCTCAAAACAAAGAAAAAA 2466
                                                                                                                                                                                                     796 SerAralleLeuValSerlleGlyGluSerPheGlyThrSerGluLysPheGlhLysIle 815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     875 ThrArgMetGlaLysGlaLysMetAsaAsperMetAspThrSerAsaLysGladLys 895 HILLITHIHHHHHHHHHHHHHHHHHHHHHHHHHH
                                                                                                                                                                                                                                                                            816 AsnGlnMetValCysAsnSerAspArqValLeuLysArqSerAlaGludlySerAsnPro 835
                                                                                                                                                                                                                                                                                                                                                836 ProtysProLeutysLysLeuArgPheAsp11eG1uGlySerAspG1uAlaAspallySer B55
                                                                                                                                                                                                                                                                                                                                                                                                                   856 LysHisLeuProOlyGluSerLysPheGluGlnLysLeuAlaGluMetThrSerThrArg 875
736 LeuGlüfyrAlaSerThrArgProProIhrLeuSerProlleProHis:leProArqSer 755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DAIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7409-025-999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/08/038,760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/470,091
FILING DATE: JUN-16-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2, Application US/08470091
Patent No. 5912236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/TOCKET NUMBER: 74(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28,462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMALION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Poissant, Brian M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66141 PENNIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10036-2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILLING DALE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-470-091-2/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
                                                                                                                                                               à
                               90
                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                 à
                                                                                           g
                                                                                                                              ŏ
                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
```

SEQUENCE CHARACTERISTICS:

```
417.0 GATAAATTCTTTAACTTACTTAAAAAAATTGATACCAGTACCAAAGTTGATAATGCTATG 3111

•••5 TGTGAANTIATATATTTGACACAACCCAGCAGTTCGATATCTACTGAAATACTGCA 2991

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TEGEG TAAAAGIIICTIGGAICACAIITITATIAGCIAAAGGGGAAGIAIIACAAAIG 2931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2870 CICICACCICCCATGTTGCTCAAAGAACCATATAAAACAGCTGTTATACCCATTAATGGT 2811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             245) ATESTECAÇACTECASITASSALSITATISTILITILI (HTHTHHHHHHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HislysPhePheAsnLenLenLysGlulleAspThrSerThrLysValAspAsnAlaMet 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 serAraLeuLeuLysLysTyrAspValLeuPheAlaLeuPheSerLysLeuGluArqThr 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     146 OyselutauIleTyrLeuThrGlnProSerSerSerIleSerThrGluIleAsnSerAla 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuValleuLysValSerTrpileThrPheLeuLeuAlaLysClyGluValLeuGlnMet 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .76 GluAspAspLeuVallleSerPheGlnLeuMetLeuCysValLeuAspTyrPheIlcLys 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196 LeuserProProMetLeuLeuLysGluProTyrLysThrAlaVallleProlleAsnGly 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 226 AshdiytemProGluValGluAshLeuSerlysArgTyrGluCluHeTyrLeutysAsa 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           295 LysAspLeaAspAlaArqLeuPheLeuAspHisAspLysThrLeuGlnThrAspSerIle 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     436 : TeProProHisThrProValArgThrValMetAsnThrIleGlnGlnLeuMetMetIle 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             258 LycAsaVallyrPheLycAsnPhelleProFheMetAsnSerLeuGlyLeuValThrSer 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               416 AspserFueGluThrGlnArqThrProArqLysSerAsnLeuAspGluGluValAsnVal 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                 74 AspLeuAspGluMet.SerPheThrPheThrGluLeuGlnLysAsnIleGluIleSerVal 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    236 AsnAspIhrArqIleIleGluValLeuCysLysGluHisGluCysAsnIleAspGluVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOUS ANAMARGITTATTTCAMANATTTTATAGGTTTTATGAATTGTTGGACTTGTAACATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LESS ANTEGATTECAGAGITTGAAAATCTTTCTAAACGATAGGAAAATTTATCTTAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative:
                                                                                                                                                                                                                                                                                                                                                                                               26 459A-29 (1-895) x US-08-470 091 2 (1-3232)
                                                                                                                                                                                                                                                                                             Mismatches:
                                                                                                                                                                                                                                         Matches:
                                                                                                                                                                                                             ongth.
                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                            Percent Similarity: 100.00%
Best tocal Similarity: 100.00%
LENGIH: 4232 base pairs
                        IYFE: nucleic acid
S:RANDEDNESS: double
l@POLOGY: not relevant
                                                                                                                                                                                                                                                                                                                    91.318
                                                                                                   MACHANILE LYPE:
                                                                                                                                                                                    Aliqument Scores:
                                                                                                                                  18-08-470-091-2
                                                                                                                                                                                                                                                                                             overy Match:
DB:
                                                                                                                                                                                                                Fred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \bar{\Xi}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĵ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4
```

```
2330 GTGAATCCAAAAGAAAGTATACTSAAAAGGSSAASGATATAGGATACATCTTIAAAGA 2271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2390 TIAAATTCAGCAAGTGATGAACCTICAGAAAATCIGATITCCTATIFIAACAACTGCACA 2333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1970 TACAAAGTGAAAGTTTTATCAAAGGAGAGGAAGTTGAAGTTGAAAGAGAAGTAGAAGTGATAAAA 1911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1670 GAGAGAAAGGTGAAGGTTGGAGGGTGGAAAGCCATTGAAATGTAAGTGTTGTGTTTTA 1611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1550 CTTCTGTCTGAGGAGGCAGAATTAGAACATATCALCTGGACCCTTTTCCAGCACACACTG 1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1490 CAGAAFGAGTATGAAGTGATGAGAGAGAGTTTTGGACCAAATTATGATGTGTGTTGTATG 1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               436 SeriteClnAsnPheSeriysLeuteuAsnAspAsnilePheHisMetSeri.cui.cuAla 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1610 CEGETETATAAAAAAGFGETATGGGGTAGGGIAICTGGGGGGTAAATAGAGTTIGTGAAGGC 1551
                                                                                               376 ValAsnProLysGluSerijeLeulysArgVallysAsplicClyTyrilenbelysGlu 295
                                                                                                                                                                                                                                                                                                     415 SlyValArgLeuTyrTyrArgValMetSluSerMetLeuLysSerGluGluGluGluArgLeu 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            636 teuteuserGludisproCluteugludistlettettettetteubhcGludisthateu 655
356 LeuAsnSerAlaSerAspGlnProSerGluAsnLeuIleSerTyrPheAsnAsnCysThr 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       576 ProvalArgSorProLystysCysClySerThrThrArgValAssScrThrAlaAsnAla 595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  676 TyrdlylleCystysVallysAsnileAspLeutysPhetysIleffeValthrAlalyr 695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrAspSerilelleValPheTyrAsnSerValPheMetSlnArqLeuLysThrAsmlle 735
                                                                                                                                                                                                                                                                                                                                  796 (ysphealalysalavald)ydlidypsvaldlaildiysticu
                                                                                                                                                                                                                               476 GlyThrAspLeuSerPheProTrpIleLeuAsnValLeuAsnLeuLysAlaFheAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2150 TCCATTCAAAATITTAGCAAACTICTGAATGACAACAIITTICAIAIGICITTATIGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          456 CysAlaLeuGluValValMetAlaThrTyrSerArgSerThrSerGlnAsnLeuAspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2090 TOCCCTCTTGAGGTTGTAATGGCCACATATAGCAGAAGTACATCTCAGAATCTTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               496 TyrtysVallleCluSerPhelleLysAlaCluShlocthAagGlothtila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  516 HisteuGluArgCysGluHisArgIleMetGluSerLeuAlaTrpLeuSerAspSerPre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1850 TEATTEGATOTTATAAAGAATOAAAGGAGGGAGAAGGACCAAGTGATCAGTTGAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       596 GluThrGlnAlaThrSerAlaPheGlnThrGlnLysProLeuLysSerThrSerLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               656 GlnAsnGluTyrGluLeuMetArqAspArqHisLeuAspGlnIleMetMetCysSerMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     536 LeuPheAspLeuIleLysGlnSertysAspArgGluGlyProThrAspHicLeuGluser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    556 AlaCysProLeuAsnLeaProLouGlnAshAshBisThaAlaAlaAspMetTyrLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .qq.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
```

```
THE TREE PROBLEM STREET FROM THE FROM T
                                                                                                                                                                                                                                                           | PERTENDAGE TECTA FOR FORCETA CONTROL OF THE FER STATES AND TOTAL OF TAXABLE STATES AND TOTAL OF TAXABLE STATES AND TOTAL OF TAXABLE STATES AND T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1070 GAAAAALCITAGIALCAALIGGIGAALCAITCGGGACTTGTGAGAAAAATA 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             206 SerAratteleevalSeerDedly/DaserBeetlyThrSerTlatysFhedIntlysHe #15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      856 [yelistoubrodystassertysPhothathathathathathasserthrArg 875]
                                                                                                                                                                                         7.6 LenglnTyrAlaSerThrAraProProThrLeuSerProII@ProHisIl@ProArgSer 755
                                                                                                                                                                                                                                                                                                                                                                                                                                      P66 Pro1yrt.gscheProSerSerProLeuArg11eProG1yG1yAsn11e1yrt11eSerPro 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  776 LentysserProtyrtys11eSerGluGlyLenProthrProthrLysMetThrProArg 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    816 AshdinmetValCysAshGerAspArqVallentysArgSerAlaGludlySerAshPro-1835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                890 AAACATCTCCCAGGAGAGTCCCAAATTTCAGGAGAAACTGGGGAGAATGACTTCTACTCGA 831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MEHOODS FOR THE DIAGNOSIS AND PROGNOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEIDEL, GONDA, LAVORGNA & MONACO, P.C.
Swite 1800 (wo Penn Center Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patentin Release #1.0, Version #1.40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 8321:13 USI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      THREENT APPLICATION DATA:
APPLICATION NUMBER: US/04/832,883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: TBM PC compatible OPERALING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application USZUBE (2883)
Patent No. 5807681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10,480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TILLE OF INVENTION: OF CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Giordano, Antonio
APPLICANT: Baldi, Alphonso
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (215) 568 8484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (215) 568-5549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4851 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Monaco, Daniel A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mucheic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM LYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILLING DALE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ž.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IIS OH H42 884 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LELEFAX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PESTI 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>...</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ê
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
```

```
AshAlaMetSerArqLealeatystystyrAsp 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481 ATGCCAAATCTACCCCGCACATTTCAGAGAGGTAGTGAGAGATTTAGAAAAATTGAGTT 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541 GTTTCTGCTGTAATTTTTAAGAAATATGAAGGGATTTTTPAGGACATCTTTAAATACGCT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601 CAAGAGAAGTAGTCGTCAGCAAGGAAAGAAACAACAGGACAGCCTGTACTGTG 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       215 Gly------SerProArgThrProArgAraGlyGlnAsuAraSerAlaArglle 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            231 AlaLysGlnLeuGlaAssASpThrArglleIleGluValLeaCysLysGluHisGluCys 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCTAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            801 ACCCHGGAGGAAATGATCTTCATTGGTTAGCALGTGGCTTATATGTGGTTTGCAGAAAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88 ChriysAsnileGlaileScrValHisiysPhethrAshla ala utysAlulleAsplbr 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           155 AlakeuValleukysValSerTrpileThrPhekeukeuAlakysGlyChuValkeudin 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661 TCTGAAAVTTTCCATITTLGTTGGGTGCTTTTALATALGCAAAAGGIAALLLGGGAGG 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 865 TCTAAAGCTTCCTCTGACGCCCTTGTATTGAGAAACTGTTGCTTACATTGAGAAACTTGCTTACATTGAGAAAACTGTTACATTACAATTGAGAAAACTGTTACATTACAATTGAGAAAAACTGTTACATTACATTGAGAAAACTGTGTTACATTACAATTGAGAAAACTGTGTTACATTACAATTGAGAAAACTGTGTTACATTACAATTGAGAAAACTGTGTTACATTACAATTACAATTGAGAAAACTGTGTTACATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAATTACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTIGHIGGAGGGGGCHCAACATGGAAGGAGGGGGGGGGG 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               175 MetGluAspAspLeuVallleSerPheGlnLeuMetLeuCysValLeuAspTyrPheIle 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721 ATTAGTGAFGAPTIGGTGAAFFFTTALGAGGTGCTGFTGTGTGTGTTGGACTTAGTT -- 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 GlnAspSetGlyPro-----GluAspLeuProLeuValArgLeuGluPheMluGlu 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19 ThrCluGluPrcAspPheThrAlaLeuCysGlnLysLeuLysTlePruAspHisValArq 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              39 GluArqAlaTrpLeuThrTrpGluLysValSerSerValAspClyValLeuGlyGlyfyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195 lysteuSerProPreMetteuLeulgsGluProfyllysThrAlaVallHeProlleAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            805 - GGTAAAGAAC FIGIGAACCCI AATITI AAAGGCI LATCI GAAGATI LI LOALGOL AAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----TATGGAAATGCACHLAGTGTTCTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421 CTGAAATGTTCAGAGGAGAGGTTAATGGAATTTTTTAATAAGAGGAAAGGGGGAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  59 HeGintystystysturen---trpClyHeCysHetheHeAlaAlaVal ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   124 ValLeuPheAlaLeuPheSerLysLeuGluArqThrCysGluLeuIleTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                        4854
277
170
170
458
469
48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US 09 026 459A 29 (1 895) x US 08 832 883-1 (1 4854)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  259 CCCGAGGCCTGGGACAGCTACCGCAGCATGAGCGAA--
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            142 -----ThrGluProSerSerSerHeSerThrGlu-
                                                                                                                                                                                                                                                                                                                                                                                                             Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 indels:
                                                                                                                                                                                                                                                                                                                                                                                             2,920-75
779,50
38,078
23,598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16.898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         108 SerThrigsValAsp----
                                               MOLECULE TYPE: CONA
TOPOLACY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                   Aliqument Scores:
                                                                                                                                               NAME/KEY:
                                                                                                                                                                                                    LOCATION:
                                                                                                                                                                                                                                         US-08-832-883-1
                                                                                          FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                        ..
2
                                                                                                                                                                                                                                                                                                                                                                                                        Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĉ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               }~
Či
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
```

ŝ	751	AsnIleAspGluValLysAsnVal	267
Ê	925	OTACTELLIGGAÁGGAÁAGGGGATAAAAGGAAATTT	984
δò	268		276
90	985	<b>←</b>	1044
Ċγ	277	OlyteoProGluValGluAsnteuSerLysArgTyrCluGluIleTyrLeuLysAsn	295
g E	1045	AA	1104
Ś	796	LysAspLeuAspAlaArqLeuPheLeuAspHisAsp	307
30	1105		1164
$\subseteq_{Y}$	308	LysThrLeuGlnThrAspS	314
3	1165	TCANGGTGTGTGAACGCTGGTTGAGAAAAAAAGGGTGAAAAGGGTGGAAAAC	1224
ें	315		332
Ē	1225	TITION TO THE STATE OF THE STAT	1284
Ś	133	ValAsaValIIeProProBisThrProValArgThrValMetAsaThr	348
Ē	1285		1344
5	44.4	LeginGinicuMetMetHeleuAsnSerAlaSerAspGinProSerGluAsnLeulle	368
岩	2.445		1404
5	÷.		388
ã	1405	CAGALLCTCAGGACATGTTCCAGAGATCCAACCCAGGCTATTGCTAACAGAACTGAAAGAA	1464
S	5 88 7	IleglyTyrIlePheLysGluLysPheAlaLysAlaVal3;yGln3lyCysVal	406
ā	1465		1524
ςŏ	407		426
30	1525	GAAATTGCCASTAAACATTFGGTTAASASASSTTTACTATAAATTAGAATCT	1584
ςŏ	427	MettentysSerCluGluArgtenSerTleGleAsnPheSerTysteuteuAsnAsp	446
3	1585		1644
35	147	AsnilePheHisMet.SerLeuLeuAlaCysAlaLeuGluValValMetAlaThrTyrSer	466
Ē	1645		1698
5	463	ArgSer thr Ser ClaAseta uA	486
£	h691		1734
ें	4. F.	Valledaseleutysklapheryphysvallleduserphellelyskladte	506
<u>a</u>	1735		1794
Ko	503	GlyAsoLeuThrArgGluMetlleLysHisLeuGluArgCysGluHisArg11eMetGlu	526
<u>ء</u>	1795		1854
ςŏ	5,27	Serf.cualaTrpl.cuSertAspSerFrol.cuPheAsp7.cuTleftysG1nSerLysAspAtg	546
12	1855		1914
Ś	547	GluGly ProThtAspHishwaldLastAlarterCys	557
â	1915	CHICCIP	1974
Ś	358	ProLeuAsnLeuProLeuGlnAsnAsnHis	567

슖	1975	ATTGCTGGTTFOR TITGATION WANDSTGANTGANGTGGTGTGTGTGTGTGTGTGTGTGTGGTGGA	2034
ÓΥ	568	rAlaAlaAspMetTyrLeuSerPr	578
47	2035	CITGGAAGGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	Z-Ü94
à	ر د	LYSLYSLYS	œ
<del>f</del>		ACTARNANARARINGROTTATTTGTTGAGAATGATAGGGGCTGTGAGGGAGGGGGG	
δ.	90	11.8e.	œ
<u>۾</u> د	L C	PRIATERINGANA ARAN MITAKTIKATORI BROMINI GOAGAATGTATOTOG Mitaktikatorian Aran Mitaktikatorian Brominian Brown Brominian Brown Brominian	
δ. 1	586	rargvalasnser	on :
S		ř ř	r.
ر م	592 2275	The Altaran	594 2334
٥y	595	laGluThrGlnAlaTh	601
å	2335	GESTATANYA TICH FUNDA TERPUNANTANYAN TERPUNANDANDANDANDANDANDANDANDANDANDANDANDAND	2394
Οy	602	Alaphegin	604
q	2395	VECTAGGGCTTCAGTGCTCAGGCCCTGGCTGGAAGTCTGAGCTCTCT	2454
δλ	604		604
÷	2455	FÇAAÇAGAT EGEG	2514
Qy	605	euLysSerThrse	613
Ê	2515	PAGENGARANTARGETTETATAN TANTASTASTASTASANDOLAGSANDARGETET	2574
ΟŸ		euSerLeuPheTyrlysLysValTyrArgLeuAlaTyrLeuArgLeuAsm	633
ĉ.	25.75		2634
٥y	634	uArgLeuLeuSerGluHisProGluLeuGluHisIleIleTrpThrLeuPheGl	259
Ē	2635	:::   ::: ATTTCAGATGAATIGAGGAAAAAATCTGGACCIGC	2588
Qy	653	spArgHisLeuAspSlnI	672
순	2689	LTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	2748
8	673	LysAstileAsp	692
É	2749	:	2808
Qy	£69	rAlaTyrLysAspLeuProHisAlaValGlnGluThr	C1 E1
3	2809	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	-46B
Qy	712		712
ā	2869	TATCAGAATT	2928
Οÿ	712		4:1
ċ	5050	<	2988
ó	712		712
÷	2989	GOOGAGTGCTOOTOOA	3048
O.y.	713	-GluGluGluTyrAspSerilelleValPheTyrAsnSerValPhe	L: L:

NAME/KEY:

FEATURE:

Page 21

```
3049 AACAGTGACATGGAAGAAGAGGAGGAGGAGGCCCCCATTGAGTTCTACAACAACATCTAC
                                                                                          1109 ATCAAACAGATTAAGAGATTGCCATGAAGTACTCACAGAGAATATGGATGCTCCTCCA 3168
                                                                                                                                                                                             ....-ACAGGGICGCGICGCGA 4210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCACAGAGAA-----ACTCCTACTAAAAAGAGA 3375
                                                                                                                                                                                                                                                                                                                                                                                          - GAAACAAIGCTTICICCICGAGAAAAGAIIIICIAIIACTTC 3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3376 GGAATTOTTTTGGAAGATGGAAGTGAATGACCTGCAAAAAGAATTTGGGGGAAAAAGATGAT 3435
                                                                                                                                            746 LeuserProlleProffisIleProArqSerProTyrLysPheProSerSerProLeuArq 765
                                                                                                                                                                                                                                              Prodly3/yAshilelyrileSerProbeutysSerProfyrLysile 782
                                              728 Met GlaArqLeallysthit Ashitetengthilyr ----- AlaSerthi ArgProProThr 745
                                                                                                                                                                                                                                                                                                                                            783 SerdludlyLeuProlhrProlhrLysMetThrProArgSerArgIleteuValSerIle 802
                                                                                                                                                                                                                                                                                                                                                                                                                                         804 OlychuserthechythrsershulystbechalycileAcadinMctValCysAspSer 822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         823 AsparqVallcoutysArqSerAladludlySerAsnProProLysProteutysLysLou 842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         843 ArgPh@AspileCluGlySerAspGluAlaAspGlySerLysHisLouPro---GlyGlu 861
                                                                                                                                                                                                                                                                      TITLE OF INVENTION: METHODS FOR THE DIACNOSIS AND PROGNOSIS OF TITLE OF INVENTION: CANGER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        34.46 TOTOPOLIALIAGGOGICIGGAAGATGTAGGIAATGACCGT 3477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         862 SertysPheGluGluLysLeuAlaGluMetThrSerThrArg 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADPRESSE: SELDEL, GONDA, LAVORDA & MONAÇO, P.C.
STREET: Suite 1800 1WO Penn Center Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8421-14 052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/832,877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: THM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Application 08/08832877
Patent No. 5840506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10,480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                          1169 CHOUSTOCCEALCOALTEGLAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Giordano, Antonio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        : (215) 568-8384
(215) 568 5549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NOT 1: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY ZAGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DATKEL NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 4853 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Monaco, baniel A
PEGISTRATION NUMBER: 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ToPoloGY: linear
MolEcule TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HOL ACTARCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ۲
ک
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US OB 842 877 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX
                                                                                                                                                                                                                                            766 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIAIE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
```

```
801 ACGCTGGAGGGAAATGATCTTCATTGGTTAGCATGTGCCCTTATATGTGGCCTTGCAGAAAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 CTGAAATGTTCAGAGCAGAGGGTTAATCGAA111111AA1AAGA1GAAGAGAGAAGAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  108 SerThrlysValAsp: ....-AsnAlaMetSerArgleulculystysTyrAsp 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541 GITTCTGCTGTAATTTTTAAGAATATGAACCCATTTTTAGGACATATCTTAAATACCCT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        215 Gly------SerProArqlhrProArqAraGlyGlnAshArqSetAidArqfle 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               805 CGTAAAGAACTIGIGAACCCIAATTTIAAAGACTIATCIGAAGATTIICA1GCTAAAGAT 864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      231 AlaLysGlmLeuGluAsmAspThrArqIleTleGlaValLeuCysLysGlaHissDasys 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 ICTGTTCCAACTGTAAGCAAAGGGACAGTGGAAAGAAACTATGTATCTTAACTAGAATG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88 GlnLysAsnileGluIleSerValHisLysPhePheAsnLeuLysGluIleAspThr 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     · HeAsuser 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    155 AlakeuVallæuLysValSerTrpHeThrPhetæuLeuAlatysGlyGluVallæuGln 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             175 MetGluAspAspLeuVallleSerPheGlnLeuMetLeuCysValLeuAspTyrPheIle 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                *IATGGAAATGCACTTCAGTGTTCTAAT 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      251 AsnIleAspGluValLysAsnVal .... TyrPheLysAsnPheIleProPheMet 267
                                                                                                                                                                                                                                                                   -----GluAsplæuProlæuValArqlæuGluBlæGluGlu 18
                                                                                                                                                                                                                                                                                                                                                                                                                                  39 GluArgAlaTrpLeuThrTrpGluLysValSerSerValAspGlyValLeuGlyGlyTyr 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19 ThrGluGluProAspPheThrAlaLeuCysGluLysLeuLysIleProAspHisValArq 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195 LysLeuSerProProMetLeuLeuLysGluProTyrLysThrAlaVallleProlleAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              59 HeGIntystystystuteu---TrpClyttefysttePhetTeAtaAtaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     124 ValLeuPheAlaLeuPheSerLysLeuGlaArgThrCysGluLeulleTyiLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 277
170
158
369
                                                                                                                       Pouservative:
                                                                                                                                                                                                                         US-09-026-459A:29 (1-895) x US-08-832-877:1 (1 4853)
                                                                                                                                         Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     142 ----ThrGlnProSerSerSerIleSerThrGlu---
                                                                              Length:
Matches:
                                                                                                                                                                 Indels:
                                                                                                                                                                                    Gaps:
                                                                                             779.50
48.078
23.598
                                                                                                                                                            16.898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 =
                                                                                                                                                                                                                                                                2 GlnAspSerGlyPro
                                                                                                                                       Best Local Similarity:
                                                                                                                     Percent Similarity:
; LOCATION:
US-08-832-877-1
                                                          Aliqnment Scores:
                                                                                                                                                            Query Match:
                                                                              No.:
                                                                                                    Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ox
                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                    ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qa ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

=

<del>.</del>	1.26	STANTEET GOARANDAAN MARKATAAAN MAACATEETSGAAAGGGTAEATTAGGAAAGTT	984
5	¥.		376
; <u>a</u>	ີ 10 1 ກ	۲.	· 0
5	177	GlyFeuProGluVal	295
ź	1045		1104
5 3	967	ysAspteuAspAlaArgLeuPhet.euAspHisAsp	307
: :		SOOMMILTERVIEWS CONTINUED TO CONTINUE OF THE CONTINUED OF THE CONTINUES OF	1104
-		1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	1224
9	ů.	1 1	332
<u>.</u>	1225		1284
5 3	1287	ValashVallie	348 1344
Š	443	HedindinLeumetMetHeleuAsnSerAlaSerAspGlnProSerGluAsnLeuHe	ω ω
<u>-</u>	5 \$ \$ 1	::: :::	1404
ŝ	46.3	SerTyrPheAsnAsnCysThrValAsnProLysGluSerIleLeuLysArqValLysAsp	388
7-1	1405	CAGALICTCANGANATOLITONANAMATONAANONTATTIGGTAARAGAGTIGAAAGAA	1464
Š	5 8 7	Legly[yr] PebelysOlulysphcAlaLysAlaValClyCInClyCysVal	406
[.]	1465	ΑI	1524
5	404	Glotter   Polity   Section	426
=	.\	GAAA FERROTAARAAATTTTI PRITTTTROGGAGATGCTTTTACTATAAAGIFAITAGAATCT	1584
S 3	1585	MetteutysSerGluGluGluGluArqtenSerfleGlnAsmPheSerfysteuteuAsnAsp 	446 1644
		AND THE COLUMN THE COLUMN TO THE COLUMN TWO THE COLUMN	* * `
វ ដ		ASTLICHTCH SMCESCHTCHTCOALAGYSA BLOCGITUAN VAINCEATHITYTECT THE HILL HILL HILL HILL HILL HILL HILL HI	466 1698
17	463	ArdSetThrSerGinAsnicuAspSerGlyThrAspLeuSerPheProTrpTleLeuAsn	486
==	1693	IATAAGCCTCCTGGGAATTTTCCATTTATTACTGAA	1734 .
ş.	X -7	VallewAsnLeuLysAlaPheAcpPheTyrLysVallleGluSerPheIleLysAlaGlu	506
4	5 / 2 / 1	ATATTTGATGTGCCTCTTTFTATTATAGGTGATAGAAGTATTGATTAGAGAA	1794
3	2.01%	GlyAsnicuThrArgSluMet HelysHislouSluArgCysGluHisArgHoMetGlu	526
Ê	1745	GATGUCCTTTGTAGAGAGGTGGTAAAAAAACTTTAATCAGATTGAAGAACAGATCTTAGAT	1854
5 3	15.27	Sort og Alattigt gagge Aspect og Drot og Droksplad Heilyse ingsaksparg	546
=		THE TRUIT OF THE T	4 1
्र ह	 		557 1974
5	n. E	ProteuAsnLeuProteuGInAsnAsnHis	567
451	1375	ATTGCTGGCTCCCCTTTGACTCCCA/AA/GGTGAAGTTCGTGGTGATACTGGAGGA	2034

ά	aAspMetTv
É	S. C.
3	33 T. FRISARRITADI ALARI ALL'ILL'ARL'ERCATTALACCATAGGIA:
97	-ysLysLys
dC	TGTTGAGAATGA
οy	584
qq	 
δŏ	586 ThrIhrArqValAsnSer591
g <sub>C</sub>	SGACACTITISCI CACCALCOCAAAAAAAAAAA
ΟŅ	1
qo	2275 ACAGCAACAATGGGGCAAACGGTAACCAITCCTGTGCAAGGTAITGCCAATSAAAATGGA 2334
ΘŽ	41
Пb	TOOTGEOOAAGICAATGEEGG
Óγ	602 AlaPheGln 604
â	 ATGCAGCCCTCAGTGCTCAGGGGGGTGGAAGTGTGAGGT
ΟŅ	604
<u>c</u>	TGAAAATAAATAATAAASISGSSAIISA
άO	ThrGlnLysProLeuLysSerThrs
υP	GT AACC
97	ysLysValTyrArgLeuAlaTyrLeuArgLeuAsnThrLeuCy
90	2575 TTATCGCTTTTCTTTAGAAAAATAAQGAFITAGGAAGETGTCGGGGGTGTCTGT 2634
ογ	LeuSerGluHis
£.	ATATTCAGAT
Οy	GinasnGinTyrGini ogMotargaspargHisLouaspGini
qo	2689 IICICCATAAIICAGIGICCIGAAVITATGAIGGAAGAGAGAGACGGAVGAGIGAIIAAIG 2748
\$C	LysAsnileAspLeuLysPheLysileIleVa
3	2749 TOTTOTALTITUTE :::
ςc	PheLysAraVal
qq	ATAGGACTCAGCCAGGCGGGGGGGTGTATASAACTGTTTTGATAAA
δ	712712
욷	SATAGCAGAAGCCATCAGAATTCTC
ΔĊ	712 712
qc	JAANAAAGATARAAANTARTARJAGAGTEGAGTEGAGTTATGARGTNAAGGA
ÁC .	
<b>q</b> 10	2989 ACCITSCONSTICCAMAGENERAGES CONTROCACACA ACCITSCON ALAGERON 3048
λo	713
qu ;	3049 AACAGTGACALGGAAGAGAGAGAGAGAGGAGACCICATTCAGTTCTACAACAACATCTAC 3108

\$ <del>\$</del>	7.28 MetilnArdLeurySThrAsufleLeuGlnTyrAlaserThrArdProProThr 745 :::::::::::::::::::::::::::::::::::	
5 3	746. LeaserProficeroBisileProArdSerProfyrLysPheProSerSerProLearg 765.	
5- Q	266 He · · · · · · ProdiyolyashletyrHeserProteutysSertrotyrLysHe 782 HT : ::HHHHHH HT:: 82H AFAGHIGICIGAAALGAIGGIGIAGAHIGGGGAGATAAAAAI · · · · · · · · 3258	
숙 윤	283 SersinGlyLeuProThrProThrDysMetThrProArqSerArq11eLeuValSerIle 802   11   :::::	
5 3	803 GlydluSerPheGlythrSerGluLySPheGluLySTLeAsnGluMetValCysAsnSer 822 	
5 3	824 AspangVallzeutysAngseralaGluGlySerasnProProLysProLeutysLysLysLeu 842   11	
독	84 ( ArgPheAspileGludlySerAspGluAlaAspGlySerLySHisL=0FroGlyGlu 861 	
등 글	862 SertysPheGluGludysLeualaGluMetThrSerthrarq 875 	
- 第 - 第 5 7 - 22 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MORRITH 14 Application US/0708962  Foreign No. 526.242  GENERAL INFORMATION  GENERAL INFORMATION  GENERAL INFORMATION  APPLICANT: Even, MATK E.  APPLICANT: Even, MATK E.  APPLICANT: Even, MATK E.  AUGHESPHINE: Tomor Suppressor  CORRESPONDENCE: Choate, 1811 & STEWATL  STREET: Exchange Place, 54 State Street  CITY: HOSTONIONE ENDARCES:  COMMUNESTEE: Choate, 1811 & STEWATL  CITY: HOSTONIONE POWER  COMMUNESTEE: Eleppy 312k  COMMUNESTEE: Flippy 312k  COMMUNESTEE: Eleppy 312k  COMMUNESTEE: COMMUNESTEE: LPGT 209  TELECO-MANION CATION INFORMATION:  TELECO-MANION CATION INFORMATION:  TELECO-MANION CATION INFORMATION:  TELECO-MANION CATION INFORMATION  TELECO-MANION CATION INFORMATIO	
	REPORTIENT FOR A STATE OF THE S	

```
978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         277 TCATTTAAAGGTTTACCATCTGATTTTCATACTGCTTTTACGGTTTCTGAAGAGGCA + 3.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        218 ArgThrProArgArgGlyGlnAsnArgSerAluArg1leAlulysGlnLecsHuAsnAsp 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             238 ThrArgiletleSlaValLeuCystysSlaHisSlaCysAsmileAsySlaValLysAsm 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   343 -----ALCATIGCIGIACIGIGAACIGAACIGAACITCICCGAAGAAGAAAAAA 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 288 TyroluglufleTyrLeutysAsuLysAspteaAopAlaArgLeaFbetecAopHisAsp 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                568 --------GAAGCAGAGGAGAGAGAAGAAAATTGGAACACTCGAAAGTTC 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           · HePro 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   610 ACTCGTGACACCCCATTAGGGAAACTGACAGGATAATGTGGGGTTAATATAAATTTCAA H69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A70 PAGPAPTITGAAAAAAAAAAAAAGICAIIIGCACCIICIACCCAATGACCGACGACGAGAIAI 729
                                                                                                                                                                                                                                                                                                                                                               131 ---LysLeuGluArqThrCysGluLeuIleTyrLeuThrGlnProSerSerSerIleSer 149
                                                                                                                                                                                                                                                                                                                                                                                                         AGO GGAAGE AGAGGAGGATTCCT 102
                                                                                                                                                                                                                                                                                                                                                                                                                                               150 ThrGlulleAsnSerAlaLeuValLeuLysValSerTrpl16ThrPheLeuLeuAlaLys 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          103 TGCAGTGTTAAGGAT-----CTGTTTAATTTCTGTTGGACACTTTTTGTTTAATACTAAG 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                170 GlyGluValLeuGlnMetGluAspAspLeuValIleSerPheGlnLeuMetLeuCysVal 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuSerPro 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199 ProMetLeu---LouigsCluProTyrLysThrAlaVallIcProffcAsnClySerPro 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      397 AIAAAGGAGCACIACIIIIAAGCCAIAIAIIICAAAAACICIIIGACAGGAAGAIAIITAAAA 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lander Dyching 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         457 @3AGAATGGGTGCTTGGAGCTTTTGAGTGATAGCAAACGAGTGAATAAGAG 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 340 -----------Thr Proval Argthr Val Met Ashibi Heelingth 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             217 TIGGARCIGATITITIGGGAATTATGTGATTATGTGGGAAAATAGAAAAAGATTGTTAAAHGGA 276
                                                                                                                                                                                                                                                                                                                  4 ATATITCAAAAATATGAGCCAATTITTTAGALALATTIGGAAAALCCALALGAAGAACCA 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TyrPhelysAsnPhelleProPheMetAsnSerLeuGlyLeuValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      308 TysthrieuGinthrAspScrileAspScribeCluthr@inArqthriroArqtys 🥶
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         517 TATGAAGAGTATGTTCTAACTGTTGGTGATTTTGATGAGGAGGATCTTTTTG
                                                                                                      247
1 40
268
440
40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         327 -----SerAsnLeuAspGluGluValAsnVal
                                                                                                    Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                          118 LeuLeuLysLysTyrAspValLeuPheAla---LeuPheSer
                                                                                                                                                                                                                                    US-09-026-459A-29 (1-895) x US-07-708-952 1 (1 2808)
                                                                                                                                                                          Indels:
                                                                                                                                                                                                                                                                                                                                                                                                     64 CCAAAGITACCACGA -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     190 LeuAspTyrPheIleLys.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   275 SerAsnGlyLeuProGlaValGlaAon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     337 CCCTGC-----
                                                                                  2.05c-74
768.00
38.27%
25.08%
                                                                                                                                                                     16.648
                                                                                                                                                 Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              338 ProHis-----
; ANTI-SENSE: NO
US-07-708-962-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              258 Val---
                                                                                                                           Percent Similarity:
                                                            Alignment Scores:
                                                                                                                                                                 Ouery Match:
DB:
                                                                                     Pred. No.:
                                                                                                                                                                                                                                                 . ô
                                                                                                                                                                                                                                                                                                                    10
C
                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>q</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :~
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      _{\rm Q}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                               ć
                                                                                                                                                                                                                                                                                                                                                                                                                                               \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \ddot{5}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \stackrel{\sim}{\circ}
```

582	MetlyrLeuSerProValArgSerProLysLys	572	:- 
9581	Ī	to to to	æ
571		•	15: 3
1776	TT ACAGGGGGAGTAACAGG	 	=
260	GluGlyProThrAspHisLeuGluSerAl	547	Š
1719	TCAAGCAIL	1,6,6,1,	-
546		<del>-</del>	:
1659	AAGGAAATGGTTATGGACAAGATCATAACAGAAGGAACAAAA	3	÷
546		e ♥C	<u> 2</u> *:
1599	- CONTACAGETIC FOCETACCICAGIGA PARACAACAACHICHTITICAACAACHACHICAA	1540	â
546	:	₹ -	1
1539	ACTGACAGTGTTCGAAGAGATATGCAACCATGTGTCCCAATTTCTGTGCAA	77	=
546	:	545	5
1479	GGACATCTTCCCCTGATGCCAATGTCTCCTCTAAATGCAACAAGAG	14.20	î.
546		346	5
1419	ACPTO GAAGAAGTTATATTCCAAATAACTTTGAAACAGGAAATGGAGGAAATGTG	1,46	=
546		4 7 2	47
1359	GANTGGAGTCAGAGTCAGAGTCAGAGTCAGAGTTTAGAGAAAAAATCCT	1.400	ŝĖ
528 1299	LeidhrArgGlumetlleLysHisLeuGluArgCysGluHisArglleMetGluSerL 	503	S 3
508 1239		118.0	à â
488 1179		459	5 8
1143	TICATOSICCITGATGGCTGTTGTT		3
1089	- 7	<u> </u>	Ê
-α d		423	5 3
1029	GOTGIAAAC	1.0	
h 0	WITH TOTAL TRANSPORTED TO THE TOTAL		
0 (	19ePerlysClairysEveAlaLycAlaValGlyGin GlyCysValGluii	7 5	5 :
606	GAATCTTGTGTGCGTAATCCTGTGGAAAACATTATGAAAATACTAAAAGGAATAGGA	3 5 5 5 5	â
391	AspAspOysThrValAspProLysGluSerIleLeuLysArqValLysAspIleGly	37.2	ŝ
371 849	Lenmet Met Heleudasi Sera La SeraspG Inntered Laserieur Lesertyrphe 111 112 113 114 115 115 115 115 115 115 115 115 115	352 790	5 6 <u>7</u>
		ı	

	qn	1837		1853
	49	a u	LysslyserThrThrArqValAsnSerThrAlaAsnAlasluThrGlnAlaThrSerAla (	703
	qq	1894		1935
	٥y	603	PheglnThrGlnLysProLoulySSerThrSerLouSerLoupheTyrLysLysValTyr 6	C1 C3
	20	1936	AIAAACAGGCCAAAGAGAAATGGGGTCGTTAAGAGATTTTACAGAAGGCTAT	1989
	ò.	623	ArgloualafyrlouarglouasafhrlouCysGluarglouLeuSorGluHisproGlu 6 	₹.
	q	1990	CATTTOGOAAGTGTAGGG ITAGGTGATGTGTGTAAAACTGGALGT11CAAA1GAG 2	2045
	S 2	643 2047	643 LeuGluHisilelleTrpThrLeuPheGluHisThrLeuGluAsnGluTyrGluLeuMet. 662   H.	662 2106
	Οy	663	ArgAspArgHisLeuAspGinTleMetCysSerMetTyrGiyTleCystysValtys E	
	qq	2107	:::	1166
	οÿ	683	AsnileAspteutys?hetysIletJeValThrAtaïy)tysAspteu8toHisAtaVal 7	702
	qq	2167	::: AAAGAAGAAGAATTITTOAAGAAATTATGAAAGTTATGAGGAATGAGGGCCAAGGTAAT: 2	2226
	ζ	703	GlnGluThrPheLysArqValLeuIleLys7	712
	qu	2227	ACTOACGVATATAGAAGTOTTOTTOTTAAAAGTATTOCAAGAGAAGTTOTOGGATATAAT   2	9877
	Οy	712		712
	순	2287	AAAAATATAAATGATGATTTTGAAATGATASATTSTSACTTASAASATGGTTGTAAAAAAA	346
	οχ	713		40.5
	QC.	2347	COLGAQUOLICOAGIGGACCAGIGAAGAAGAAAGAAGAAGIGATGATATAAAATTITACAAI 2	2406
	ŝ	7.54	SerValPhoMotSlnArqLoutysThrAsmiloLouslaTyrAlaSerThrArg 7	74.2
	qi	2407	ACATATATATA GGAAGAGTGAAGTGATTTGGACTGAAATAGGACTTGGGGAATGAGGGC 2	2465
-	0.3	743	ProfroThricaSerFroileBroffsTleProAlgSerFroigrigs 7	758
•	qq	2467	CATATIGATIGATICACION CONTINUENTA CONTINUENTE A SECUENTIA DE CONTINUENTE DE CONTIN	2517
	οy	759	PheProSerSerProLeuArglleProGlyGlyAshlteTyrlleSerProLeuLys 7	177
	qu	2518	CAGGGTCACCACGCGCATTTCCCAGCACTCCATTTATATT	2562
	ς	778	SerProTyrLys1leSerGluGlyLeuProThrProThrLysMetThrProArgSerArg 7	29.1
	qu	2563	TOGOOGAGAAGAATOGGTGAGGGGTTACACCAAGAAGGGGT	2604
	ζō.		The equal Serif ed goldge effect grith serol signification grant to Asolds Breath Hills	. 1
	qq	2605	CFGCTGTACAAGTTCAATGGCAGCCCTTCTAAGAGTTTGAAAGATATCAACAAC	26.5x
	$\zeta_{\lambda}$	818	MetValCysAsnSerAsp	332
	<u>Q</u>	5659	ATGATAAGGCAAGGTGAGCAGAGAACCAAGAAGGGAGTAATAGCCATCGATAGTGATGA	2718
	ζ	833	SerAsnProProLys 837	
	ā	2719	GAATCCCTGCCAAA 2733	
	KESU US-0 : Se	11.1 15 18-152- quence	SULT 15 -08-152-721B-1 Sequence 1, Application US/08152721B Patent No. 5952315	
		APPLI	INFORMATION: CANT: Livingston, David M.	

Š	218 Ar	${\tt qthrProArqArqClyCleAcgArqSerAlaArqIleAlaLyscluLectluAsgAspart} \\$	2.47
106	337 CC		147
ć	238 Th	238 ThrArqlletheGlaValLeuCystysGluHisOluCysAssElleAspSluValLyaAss 257	,
qq	343	ATCATTGCTGTACTGTGTAACTGCATGGACTTCTCGTAGAAGCAAAAAGA	496
5 1	258 Va		274
<u>a</u>	397 AT	'AAAGGAGCACTACTTTAAGCCATATATTTCAAAACTCTTTGACAGGAAGATATTAAAA.	456
Ç	275 Se	rAsnGlyLeuProGluValGluAsn LeuSerLysArq	787
ş	00 634	AGAA LSCCT CCT GGACCT TTCAAGT FITACT GA LAATAGTAAGTAGTGAATAGGAG	5.16.
5	288 Ty	reluclettellysAstrysAspleaAspAlaArqleutheteAspHisAsp [HIII]	407
qq	517 TA	TGAAGAGTATGTTCTAACTGTTGGTGATTTTGATGAGGGATCTTTTG	567
СУ	. 308 т.у	sThricuGinThrAspSet MeAspSerPheGiuThrGinArqihrProArqiys	426
qq	568	GGAGCAGACGCAGAAGAAATTGGAACTCGAAGTTC	609
Ç.	327	SerAsnLeuAspGluGluValAsnVal	4+7
qu	610 AC	TEGHGACACCCATTAGGAAACTGAGAGAGAGAATGTGGAATATAAA	669
ζ	338 Pr	OHis	6.4.4
qq	670 CA	GEACTTTGAAAAAAAAAGGTCATTTGGAAGTTGTAGGCGACTGACGGGCGGAGATAT	724
OY	340	ThrProValArqThrValMetAshihr   LeGlnGln	35.1
qq	730 TI	ACGAGAAAAAGAAGCAGTCATTACTCCTGTTGCALCAGCCACCAAAGTGTGTGTGT	784
φ	352 Le	uMet.Mot.IleLeuAsnserAiaserAsptinProserGluAsnLeu.HeSetTyrPhe	17.1
वेत	740 TT	APAGAGTATTGTGGGTGGTGAAAAATGCACGAAGTGACCAATTTATAAATATTTTT	844
O.Y	372 As	nAsnCysThrValAsnProLysGluSerTleLenLysArqValLysAspTledt, Tyr	161
CID CID	850 GA	ATCTTGTGTGCGTAATCCTGTGGAAAACATTATGAAAATACTAAAAAGAATAGGAGG	606
οy	192 11	ebbelysclutyspheAlatysAlaValClyClr clyCysValClutle	408
Dh	910 AC	TTTCTGTCAACACTATACTCAATCAACAGAAGAAGCAGGATCTCACATAGACTTT	496
ç,	409 G1	ySerGladrqTyrLysLeuGlyValArqLeuTyrTyrArqValMetGluSerMetLeu	8,7
qc.	670 و	TIGTAAAGAGCTAAAGGTGGGGAGAAATTTTGTATTTTAAAATAGTGGGGAGATGTAATG	10.24
λο 	429 Ly	sserGluGluGluArqLeuSerIleGlnAsnPheSerLysLeuLeuAsnAspAsnIle	448
q <sub>0</sub>	1030 GT	TCAGGAAACACGAAGATCATGGAATGGACTTTTTTTTTT	1089
Οy	449 Ph	ieBisMet SerbeuleuAlaCysAlabeuGluValValWetAlathrTyr SerArgSer	468
qq	1090 TT	TOTAL THE TELEVISION OF THE THEORY OF THE THEORY OF THE THEORY OF THE TRANSFER	1143
Oy	469 Th	rSerGlnAsnLeuAspSerGlyThrAspLeuSerPheFroTrp11eLeuAsnValLeu	# X X
106	1144		1174
6)	489 As	######################################	508
qq	1180 AA	CTECAACCATTTACTTTATAAGGTTATTGAGGTGGTGATCCGCTCAGAAGAGGGG	1244
ςλ	509 Le	outhrangelomet Helystiskeudloargeysdlothisang Homer Chuserlaur Heist Hisselliss (1111111)	H7',
qq	1240 61	CTCAAGGGACA [GSTGAAACACCIAACAA]	55,7

524 AI - 1 cons 36	Land Trice (Set AspSer Protect) Pedesphent Letys GIn Sertys AspArg	546 1359
		46
. 46.: AC	I GAAGAAG ETA FATTI CCCAAA FAACTITI GAAACAGGAAA FGGAGGAAATIG	1419
146		546
	ACALCITCCCCIGALGCCAATGTCTCTCTAATGCAACGAAGAGFTAAGG	1479
		546
148 - AC	:GACAGTGGGGGTCTTCGGAGGATATGCAACCALIGTCTCCAALLICIGT	1539
9 <b>₽</b> 5		546
1540 CG	STACAGITICI CCITACCGCAGGGGGTIGCTVAAGAGAGAGTICTITII GGAGAG	1599
		546
₹ .	GAAAT GCTTAT GGACAAGATCATAACAGAAGAACAAAATTGAAAATCGCTCCTTG	9
1		546
1660 TC	NTTACTGCTGAAA/	1719
	dludlyProThrAspHisLeudluSerAlaCysProLeuAsn	60
₹ ::2	400000 AGTAACAGGACAGACAT	9//1
561 1777 30		571 1836
572 Me	Met lytleuSerproval	582 1893
5.84 E.Y.	ysslyserThrThrArqValAsnSerThrAlaAsnAlaGluThrGlnAlaThrSerAla	209
	:::            CAGACCAATOTGACTAAA	1935
सुष्य भाव 1988	hedinihrd	622 1989
123 AT	rafecalatyrfeuargieuasmfhrfeucyscluargieufeusercluHisProclu 	642 2046
	euGluBi Fl FACGAAG	662 2106
	PASPAPHISLEHASPSINIIEMSHEECYSSOZMOLTYFSIY 	
a: r	ASELLEASELCULYSPECLYSTELLOVALTERALATYTLYSASPLCUPTOHISALAVAL :::	702
* !	nsluthrPheLysArgValLeuIteLys	15
717	- 1, A, G, A I A I A I A I A I I I I I I I I I I	712
	C & THE CASE OF A SEC. S. THE CASE OF A SEC. S. T. S. C. S.	a -
	IGALAGAT 161 GACT LAGAAGA 16C LACAA	2
+12		724

중 중 수 중

\$ £

3 8 3 8 3 8 3 8 3 8

5 4 5 1

Ę	2347	2347 OCTGACTGTTGGAGTGGAGCAGTGAAAQAAGAAAGAGAACTGATGATATAAAATTTTAGAA. 24	2406
δλ	725	rAlaSerThrAra	24.2
da	2407	40	2466
Οy	743	lyrlys	758
qu	2467	2467 CATATGATGGATGCTCCACACTCTCTCTTTCCACAIAITAAACAACAG 25	2517
QY	759		r. r.
qu	2518	518randoriyadcageggatitigegaggaggagtgtatatatit	7957 7
ολ	322	roThrProThrLysMetThrProArqSerAra	797
. qa	2563	TECCOGGRACARAMATIGGGLOAGGOTTITT	2604
0.7	405	HeleuValSerTleClyCluSerPheSlyTtbrSerClutysPheStatysTleAsnGin 81	817
υþ	2665		2658
ΟŊ	818	JlysArgSerAlaGluGly	30 52 52
136	2659		718
Qy	833	SerAsnProProLys 837	
Q ()	2719	2719 GAATECCTIGCCAAA 2733	
Sear Job	ch com	Search completed: January 19, 2003, 05:19:45 Job time : 160.913 secs	

5 8 6 8 5 8 5 8 6